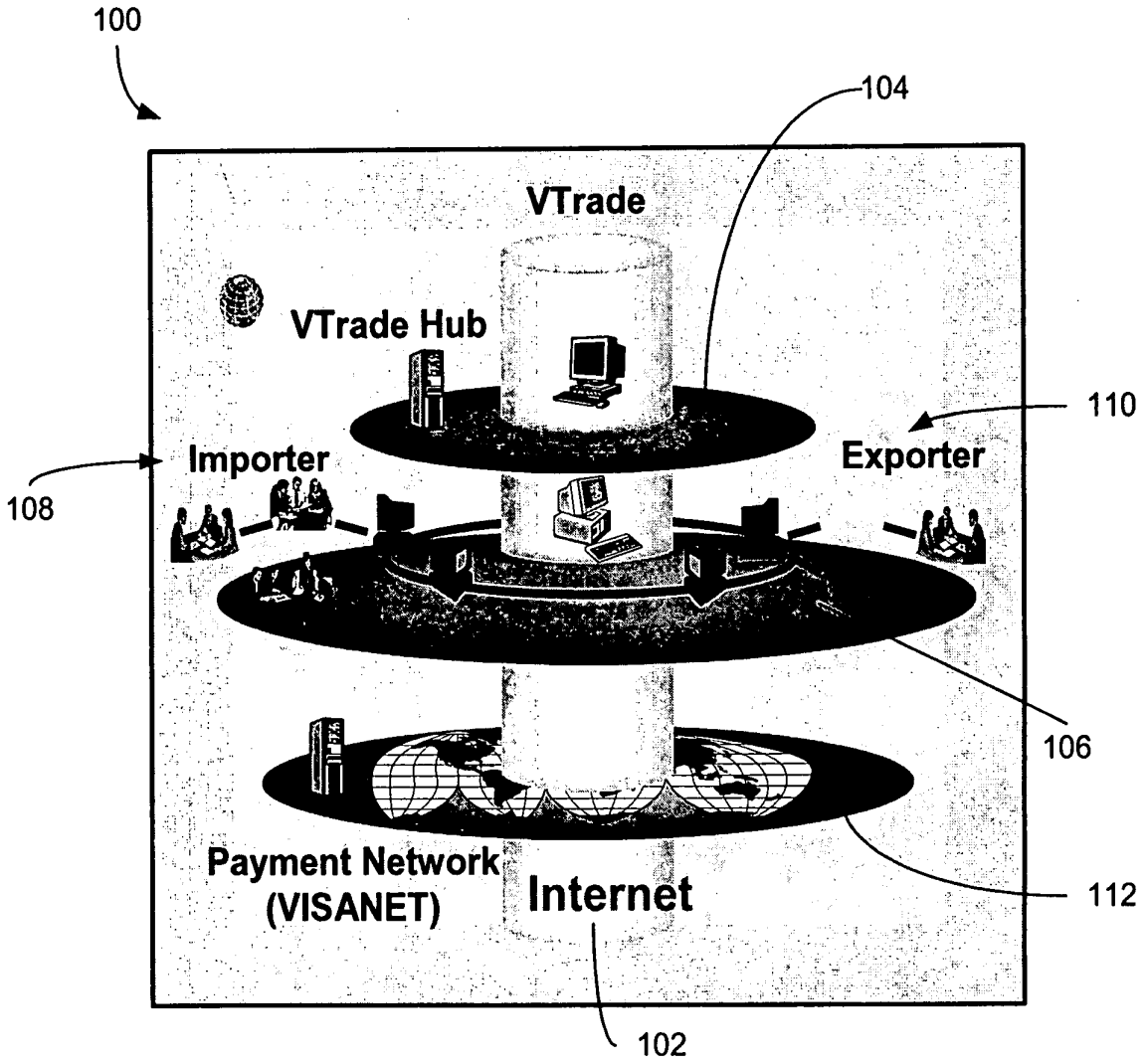

100
104
VTrade
VTrade Hub
110
Importer
Exporter
108
106
Payment Network
(VISANET)
Internet
112
102

Figure 1

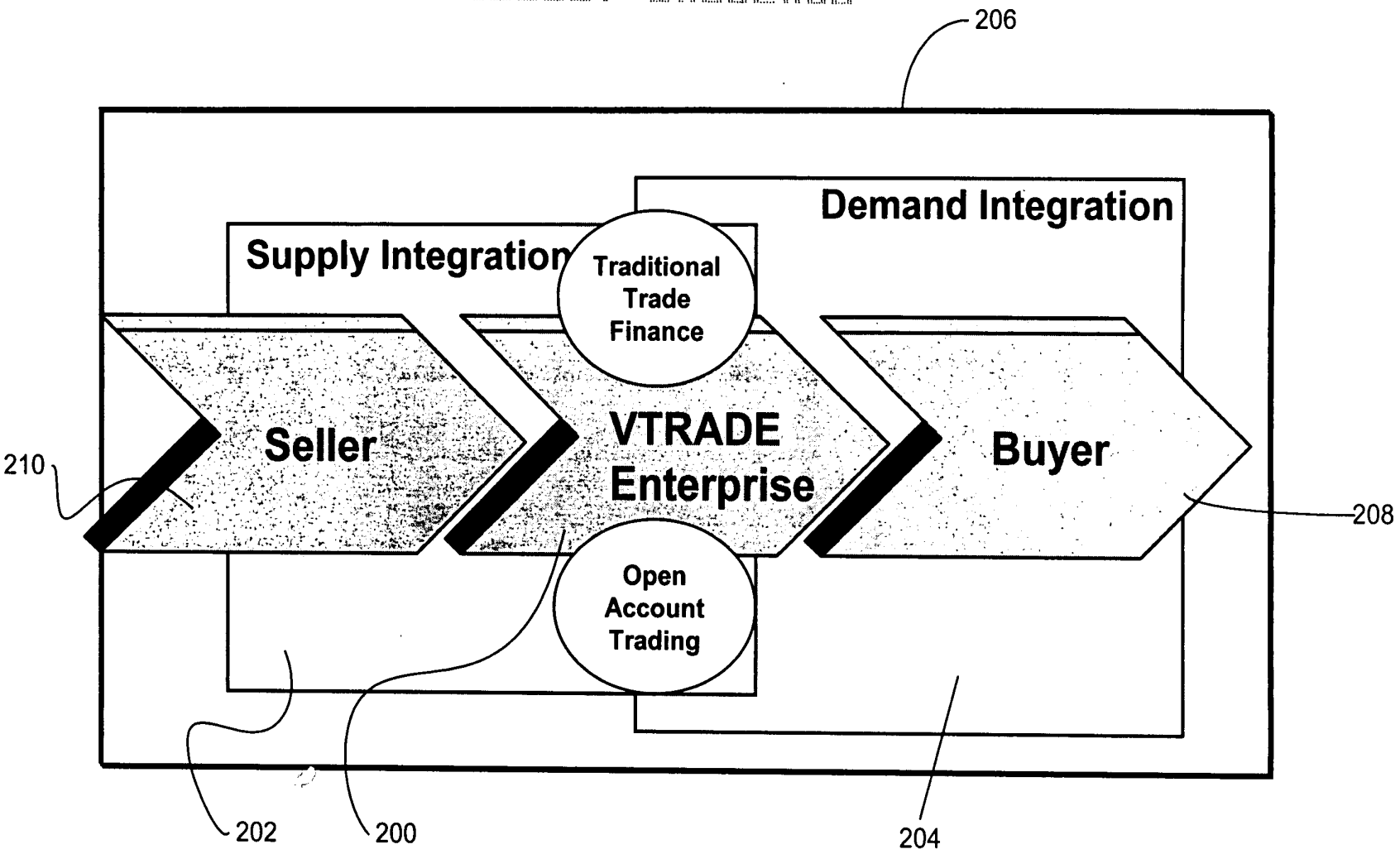

206
Demand Integration
Supply Integration
Traditional
Trade
Finance
Seller
VTRADE
Enterprise
Buyer
210
208
Open
Account
Trading
202
200
204

Figure 2

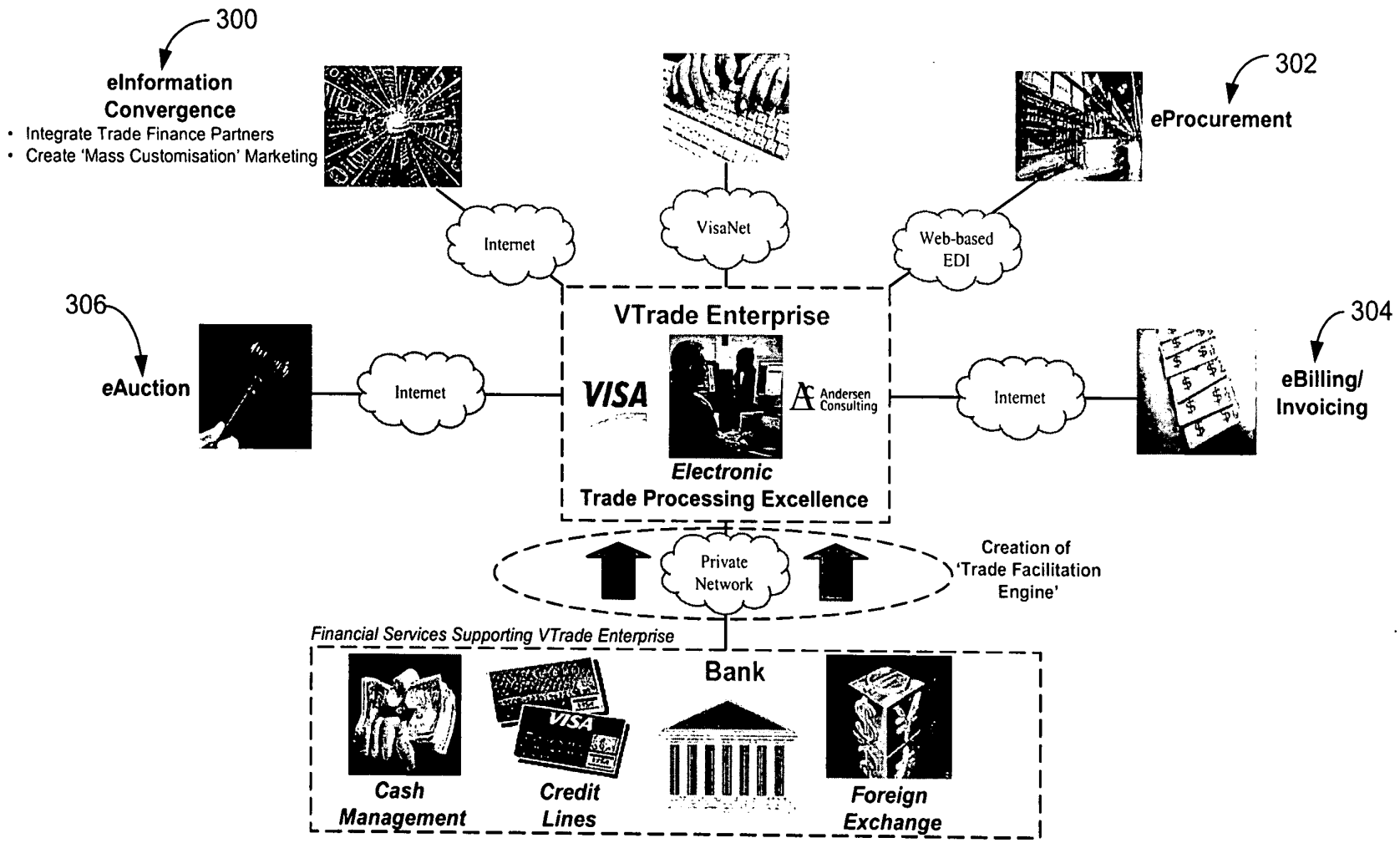

300
eInformation Convergence
• Integrate Trade Finance Partners
• Create 'Mass Customisation' Marketing
302
eProcurement
Internet
VisaNet
Web-based EDI
306
eAuction
Internet
VTrade Enterprise
VISA
Andersen Consulting
Electronic
Trade Processing Excellence
Internet
304
eBilling/ Invoicing
Private Network
Creation of 'Trade Facilitation Engine'
Financial Services Supporting VTrade Enterprise
Bank
Cash Management
Credit Lines
Foreign Exchange

Figure 3

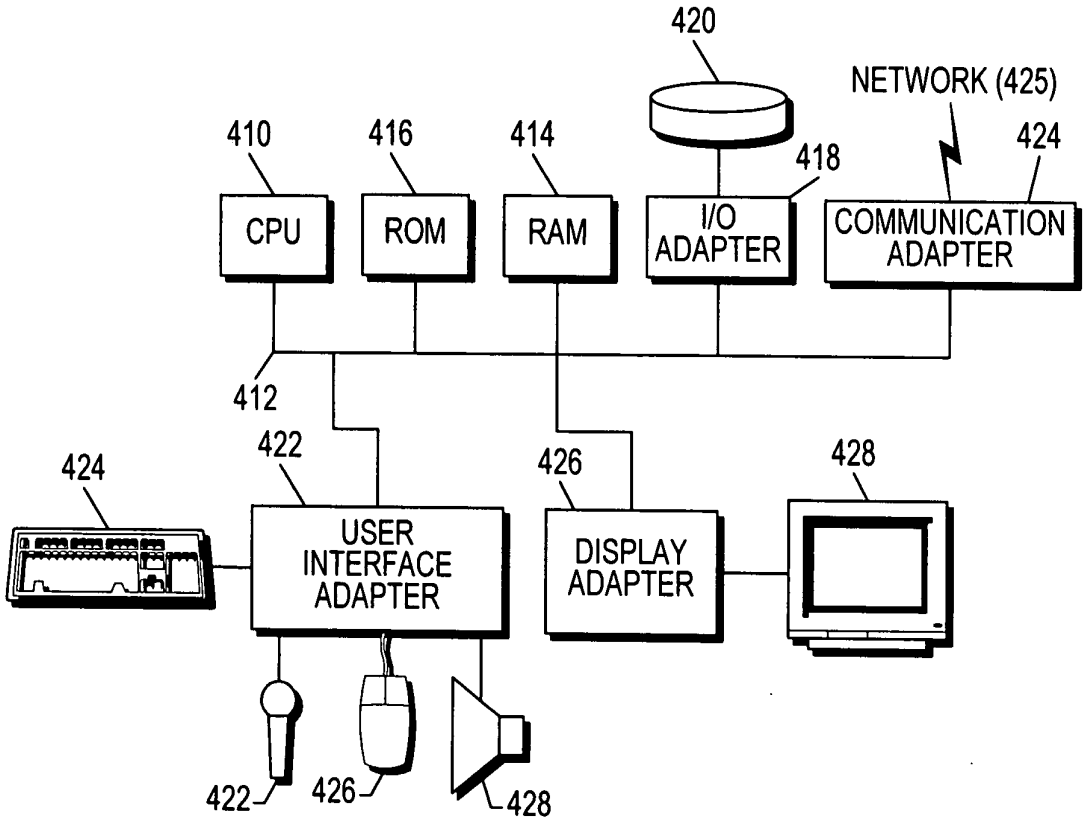

420
NETWORK (425)
410
416
414
418
424
CPU
ROM
RAM
I/O ADAPTER
COMMUNICATION ADAPTER
412
424
422
426
428
USER INTERFACE ADAPTER
DISPLAY ADAPTER
422
426
428

Figure 4

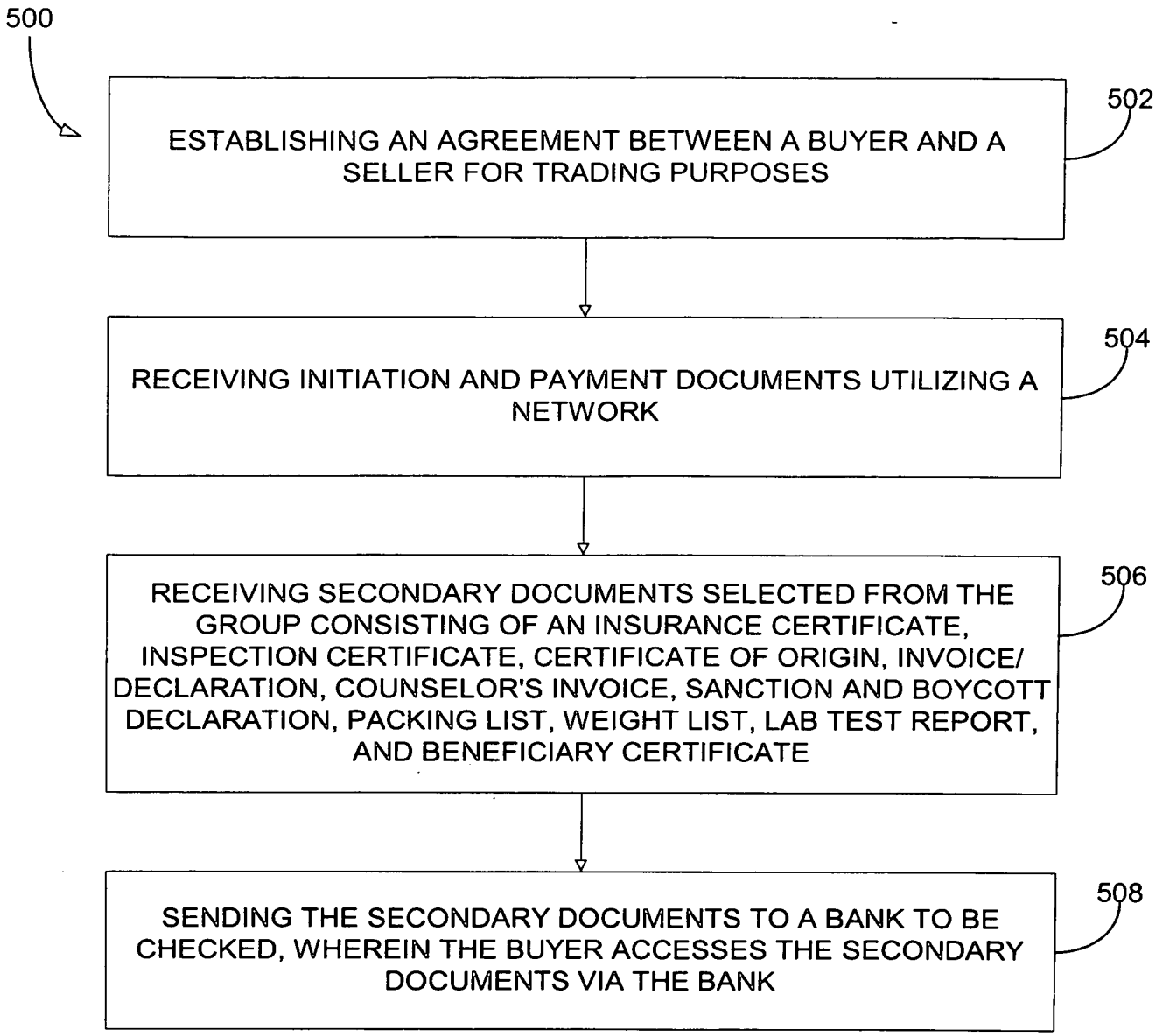

500
ESTABLISHING AN AGREEMENT BETWEEN A BUYER AND A SELLER FOR TRADING PURPOSES
502
RECEIVING INITIATION AND PAYMENT DOCUMENTS UTILIZING A NETWORK
504
RECEIVING SECONDARY DOCUMENTS SELECTED FROM THE GROUP CONSISTING OF AN INSURANCE CERTIFICATE, INSPECTION CERTIFICATE, CERTIFICATE OF ORIGIN, INVOICE/ DECLARATION, COUNSELOR'S INVOICE, SANCTION AND BOYCOTT DECLARATION, PACKING LIST, WEIGHT LIST, LAB TEST REPORT, AND BENEFICIARY CERTIFICATE
506
SENDING THE SECONDARY DOCUMENTS TO A BANK TO BE CHECKED, WHEREIN THE BUYER ACCESSES THE SECONDARY DOCUMENTS VIA THE BANK
508

Figure 5

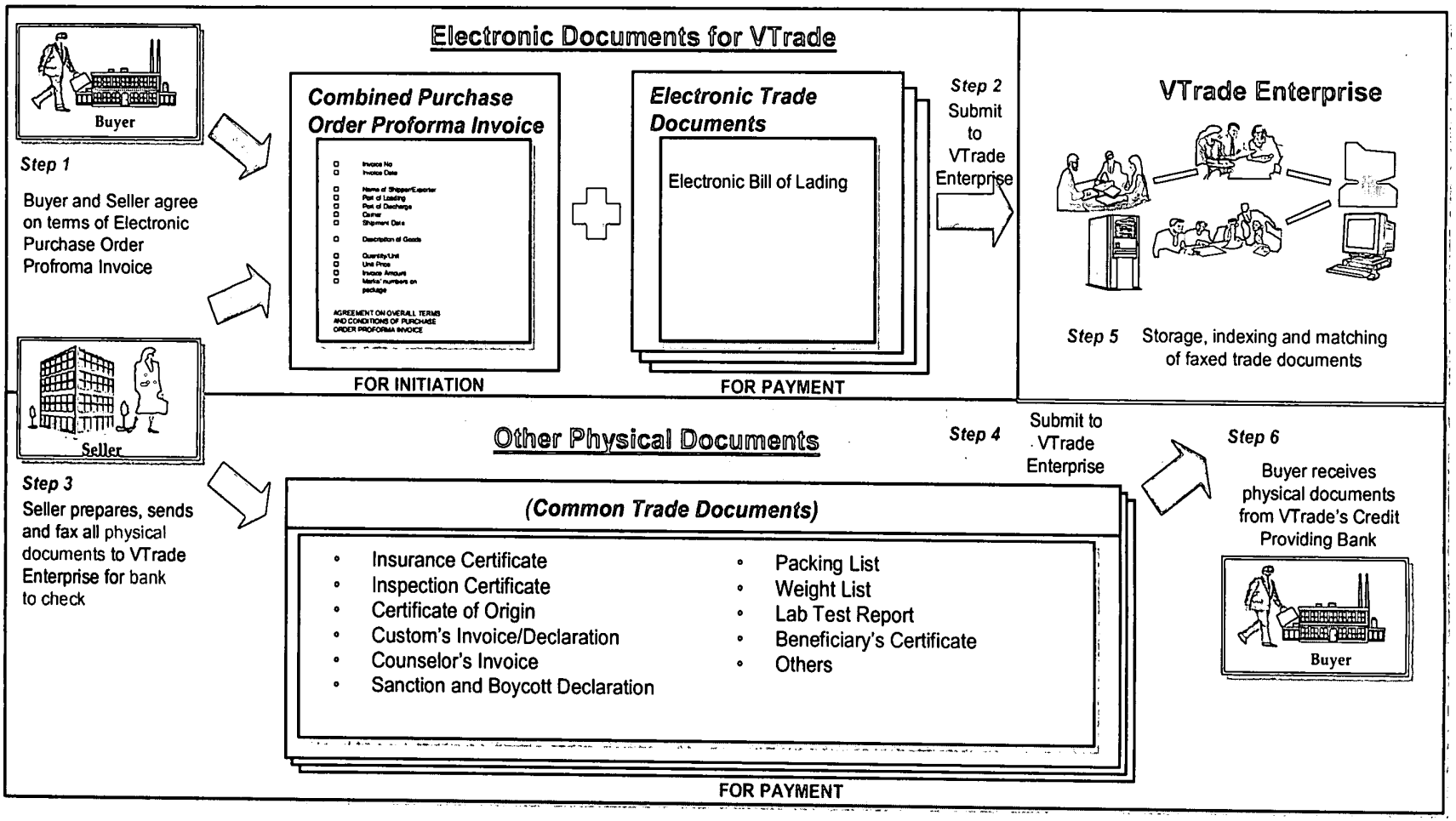

Electronic Documents for VTrade
Buyer
Step 1
Buyer and Seller agree on terms of Electronic Purchase Order Profroma Invoice
Combined Purchase Order Proforma Invoice
FOR INITIATION
Electronic Trade Documents
Electronic Bill of Lading
FOR PAYMENT
Step 2
Submit to VTrade Enterprise
VTrade Enterprise
Step 5
Storage, indexing and matching of faxed trade documents
Seller
Step 3
Seller prepares, sends and fax all physical documents to VTrade Enterprise for bank to check
Other Physical Documents
Step 4
Submit to VTrade Enterprise
(Common Trade Documents)
Insurance Certificate
Inspection Certificate
Certificate of Origin
Custom's Invoice/Declaration
Counselor's Invoice
Sanction and Boycott Declaration
Packing List
Weight List
Lab Test Report
Beneficiary's Certificate
Others
FOR PAYMENT
Step 6
Buyer receives physical documents from VTrade's Credit Providing Bank
Buyer

Figure 6

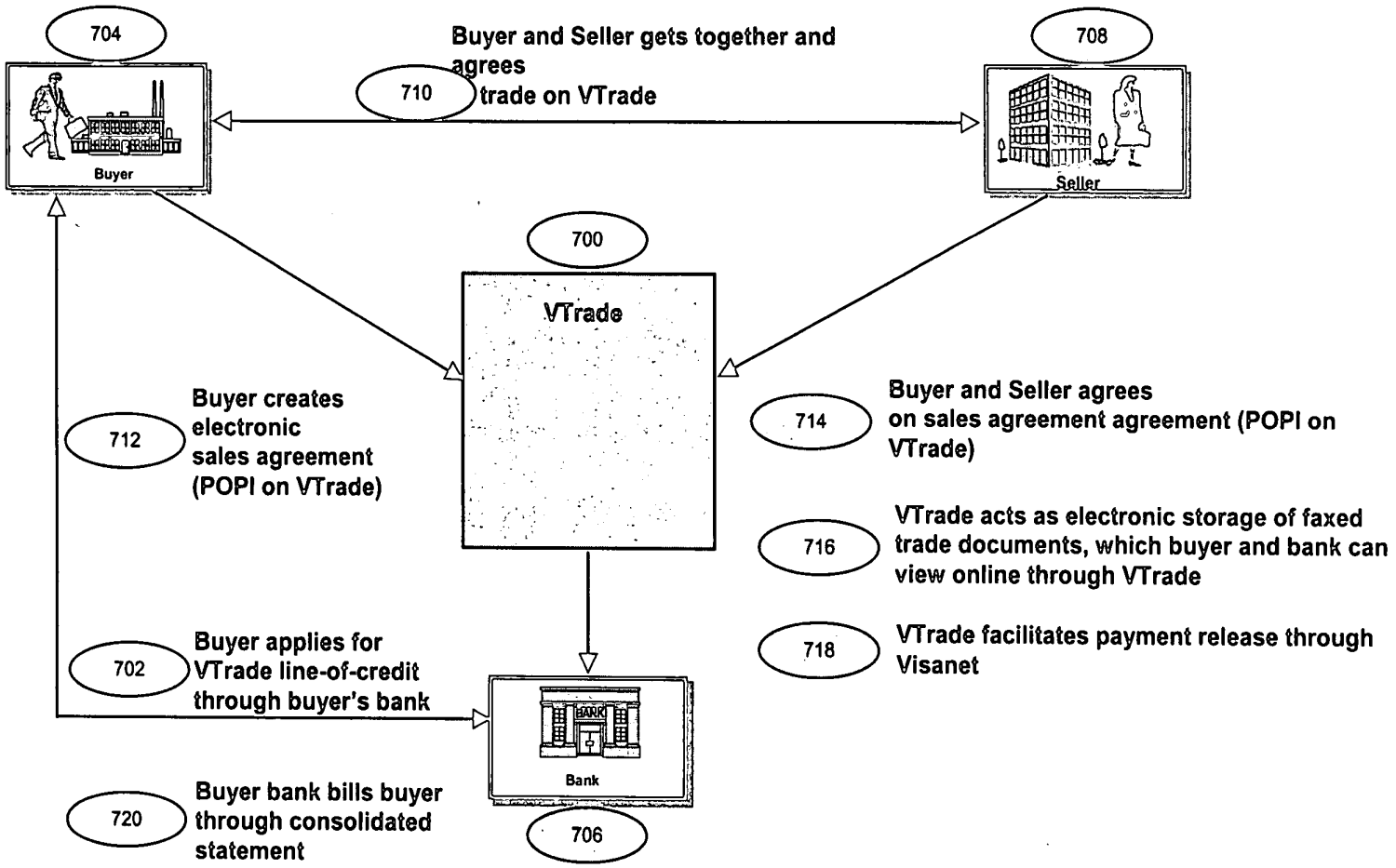

704
Buyer and Seller gets together and agrees
710
trade on VTrade
708
Buyer
Seller
700
VTrade
Buyer creates electronic sales agreement (POPI on VTrade)
712
714
Buyer and Seller agrees on sales agreement agreement (POPI on VTrade)
716
VTrade acts as electronic storage of faxed trade documents, which buyer and bank can view online through VTrade
718
VTrade facilitates payment release through Visanet
702
Buyer applies for VTrade line-of-credit through buyer's bank
BANK
Bank
720
Buyer bank bills buyer through consolidated statement
706

Figure 7

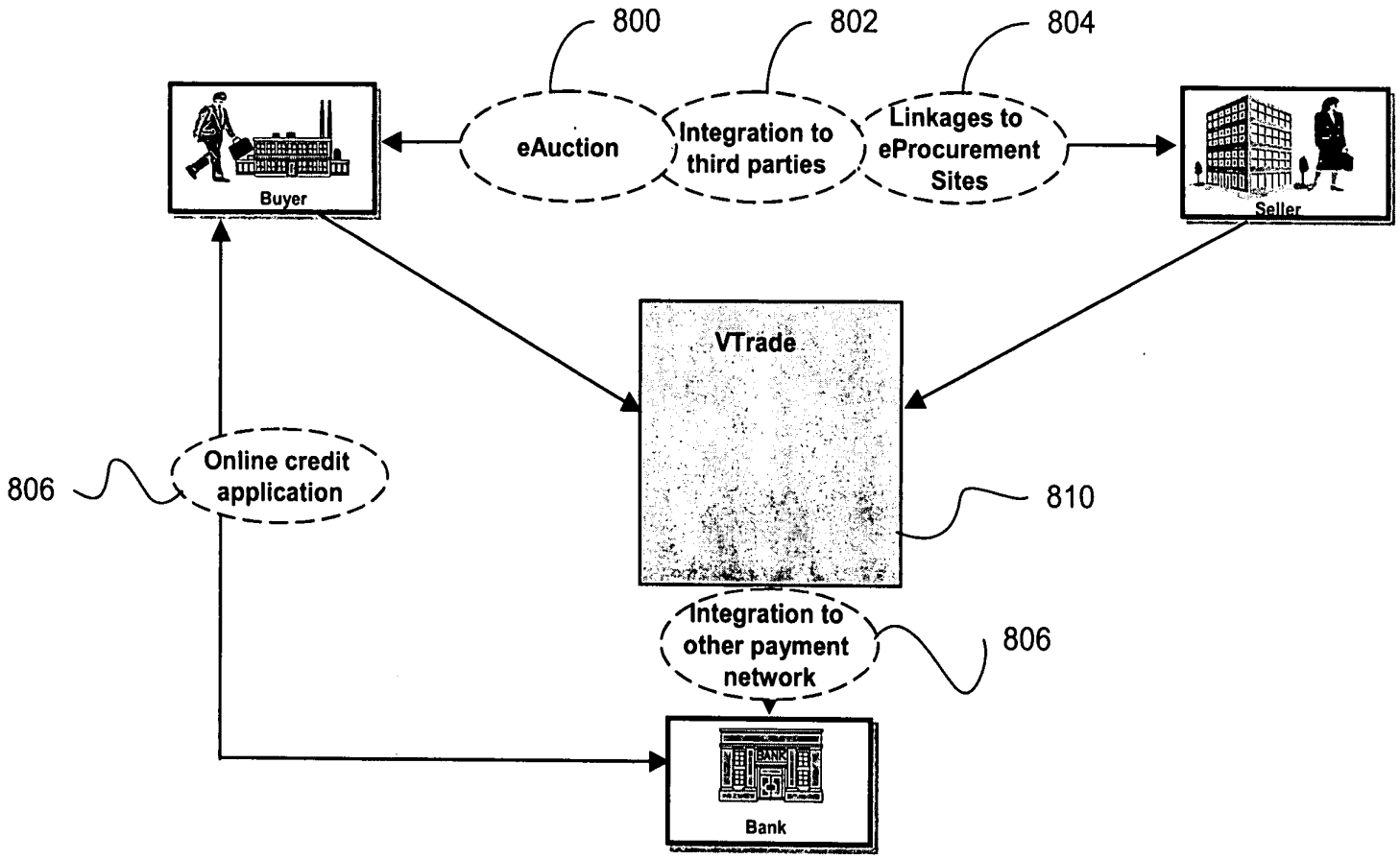

800
802
804
eAuction
Integration to third parties
Linkages to eProcurement Sites
Buyer
Seller
VTrade
Online credit application
806
810
Integration to other payment network
806
Bank

Figure 8

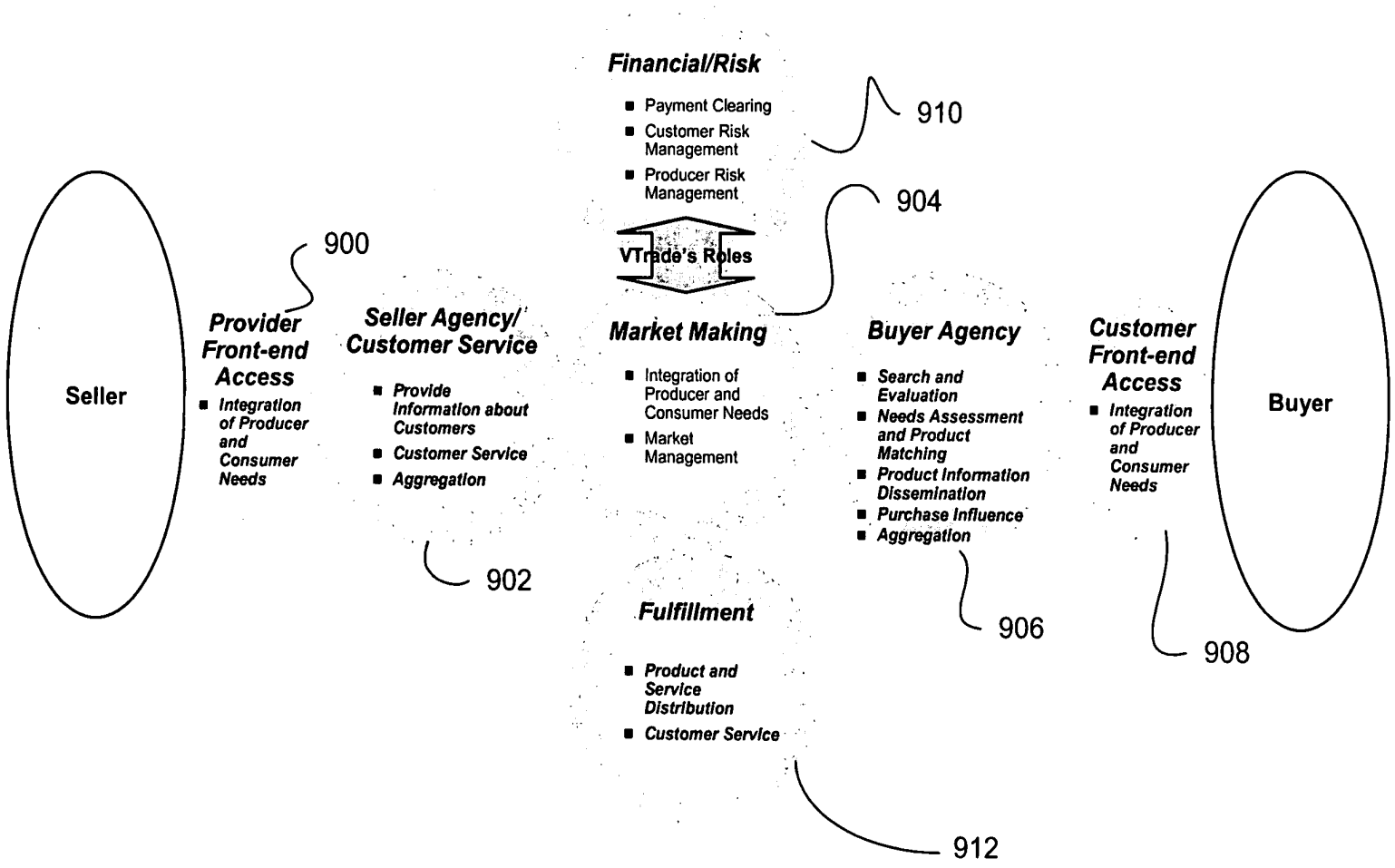

Financial/Risk
Payment Clearing
Customer Risk Management
Producer Risk Management
910
904
VTrade's Roles
900
Seller
Provider Front-end Access
Integration of Producer and Consumer Needs
Seller Agency/ Customer Service
Provide Information about Customers
Customer Service
Aggregation
902
Market Making
Integration of Producer and Consumer Needs
Market Management
Buyer Agency
Search and Evaluation
Needs Assessment and Product Matching
Product Information Dissemination
Purchase Influence
Aggregation
906
Customer Front-end Access
Integration of Producer and Consumer Needs
908
Buyer
Fulfillment
Product and Service Distribution
Customer Service
912

Figure 9

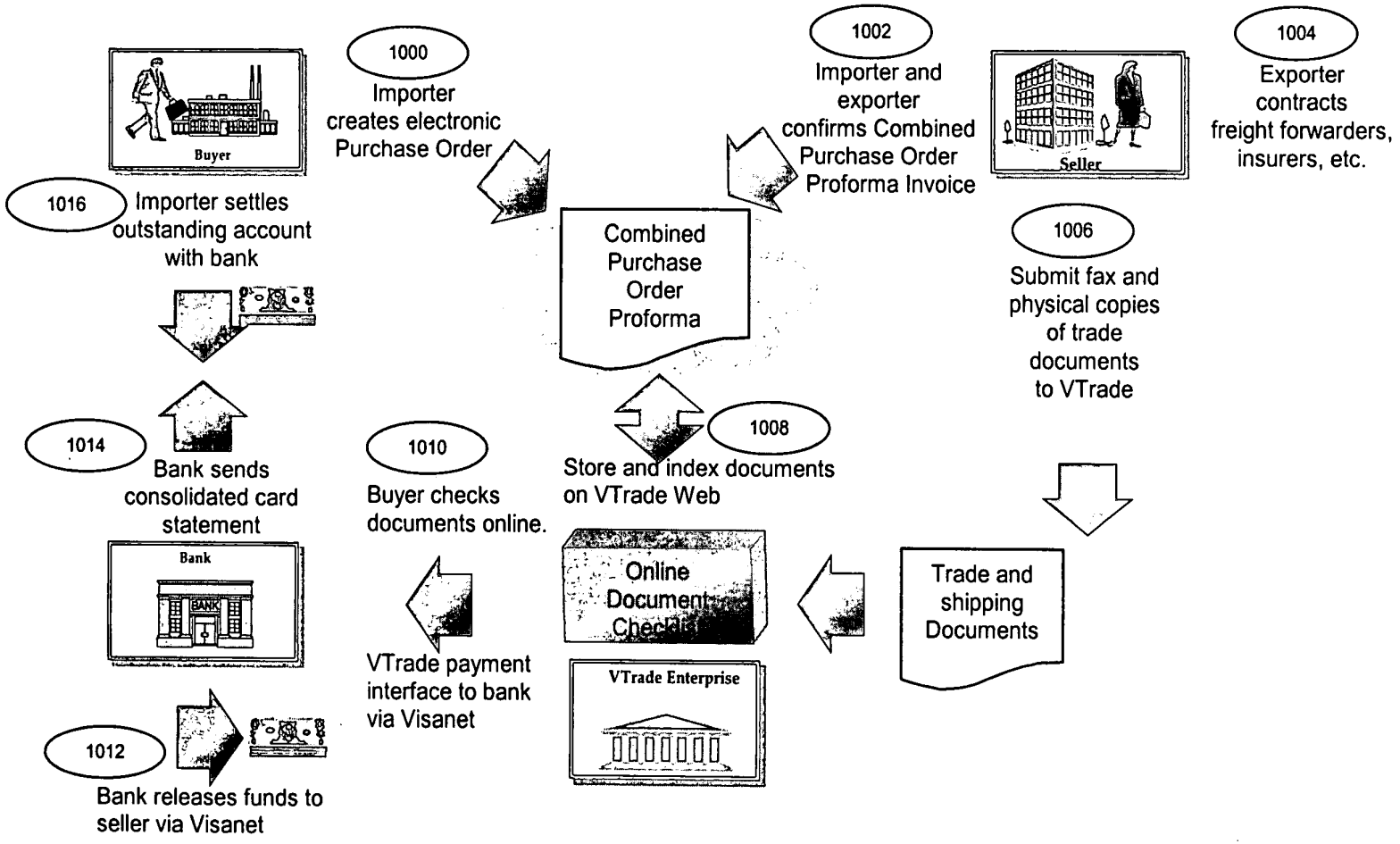

Buyer
1000
Importer creates electronic Purchase Order
1002
Importer and exporter confirms Combined Purchase Order Proforma Invoice
Seller
1004
Exporter contracts freight forwarders, insurers, etc.
1016
Importer settles outstanding account with bank
Combined Purchase Order Proforma
1006
Submit fax and physical copies of trade documents to VTrade
1014
Bank sends consolidated card statement
1010
Buyer checks documents online.
1008
Store and index documents on VTrade Web
Bank
Online Document Checking
Trade and shipping Documents
VTrade payment interface to bank via Visanet
VTrade Enterprise
1012
Bank releases funds to seller via Visanet

Figure 10

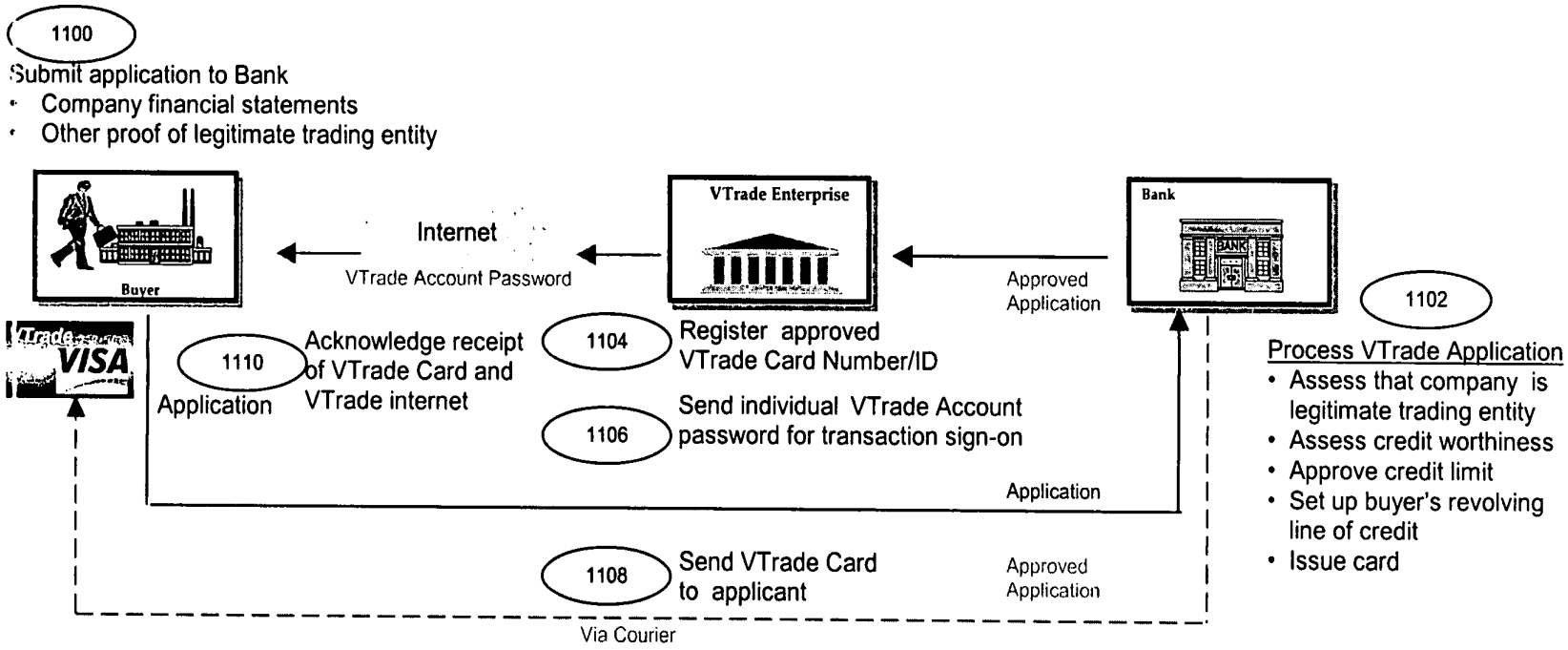

1100
Submit application to Bank
• Company financial statements
• Other proof of legitimate trading entity
Buyer
Internet
VTrade Account Password
VTrade Enterprise
Bank
Approved Application
1102
Process VTrade Application
• Assess that company is legitimate trading entity
• Assess credit worthiness
• Approve credit limit
• Set up buyer's revolving line of credit
• Issue card
1110
Application
Acknowledge receipt of VTrade Card and VTrade internet
1104
Register approved VTrade Card Number/ID
1106
Send individual VTrade Account password for transaction sign-on
Application
1108
Send VTrade Card to applicant
Approved Application
Via Courier

Figure 11

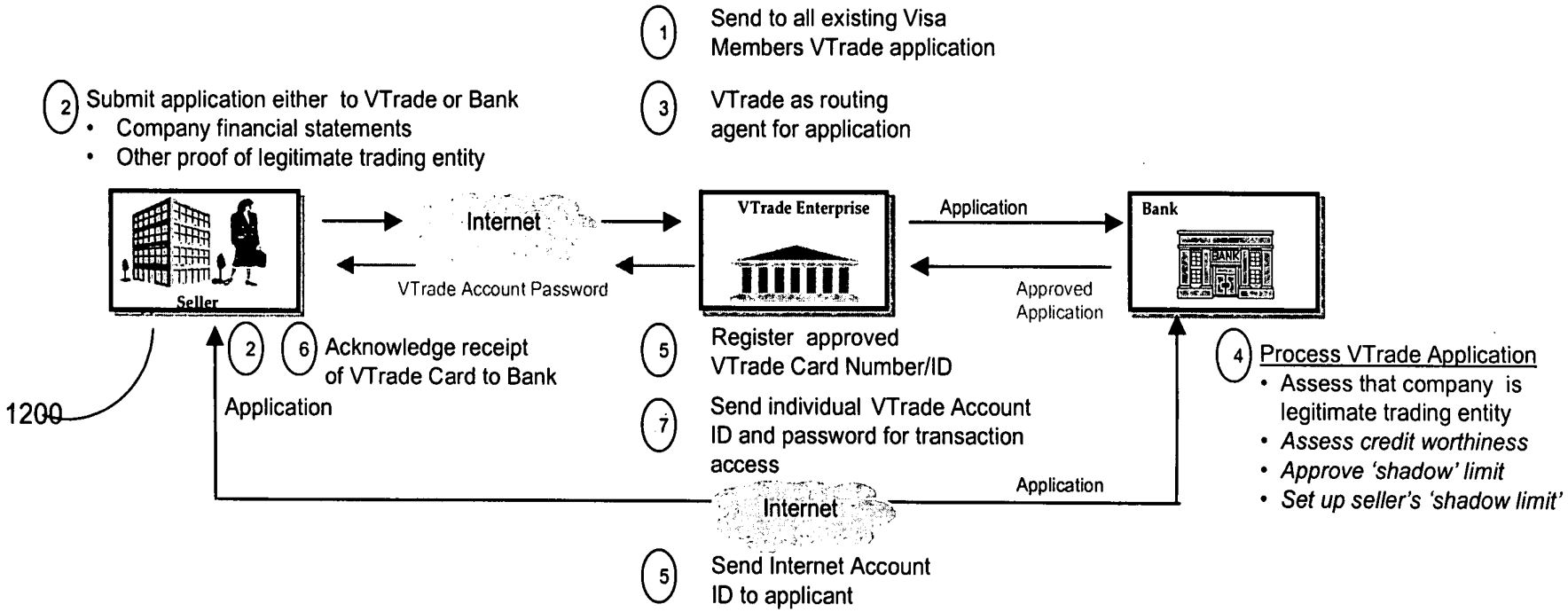

1 Send to all existing Visa Members VTrade application
2 Submit application either to VTrade or Bank
• Company financial statements
• Other proof of legitimate trading entity
3 VTrade as routing agent for application
Seller
Internet
VTrade Enterprise
Application
Bank
VTrade Account Password
Approved Application
2 6 Acknowledge receipt of VTrade Card to Bank
Application
1200
5 Register approved VTrade Card Number/ID
4 Process VTrade Application
• Assess that company is legitimate trading entity
• Assess credit worthiness
• Approve 'shadow' limit
• Set up seller's 'shadow limit'
7 Send individual VTrade Account ID and password for transaction access
Application
Internet
5 Send Internet Account ID to applicant

Figure 12

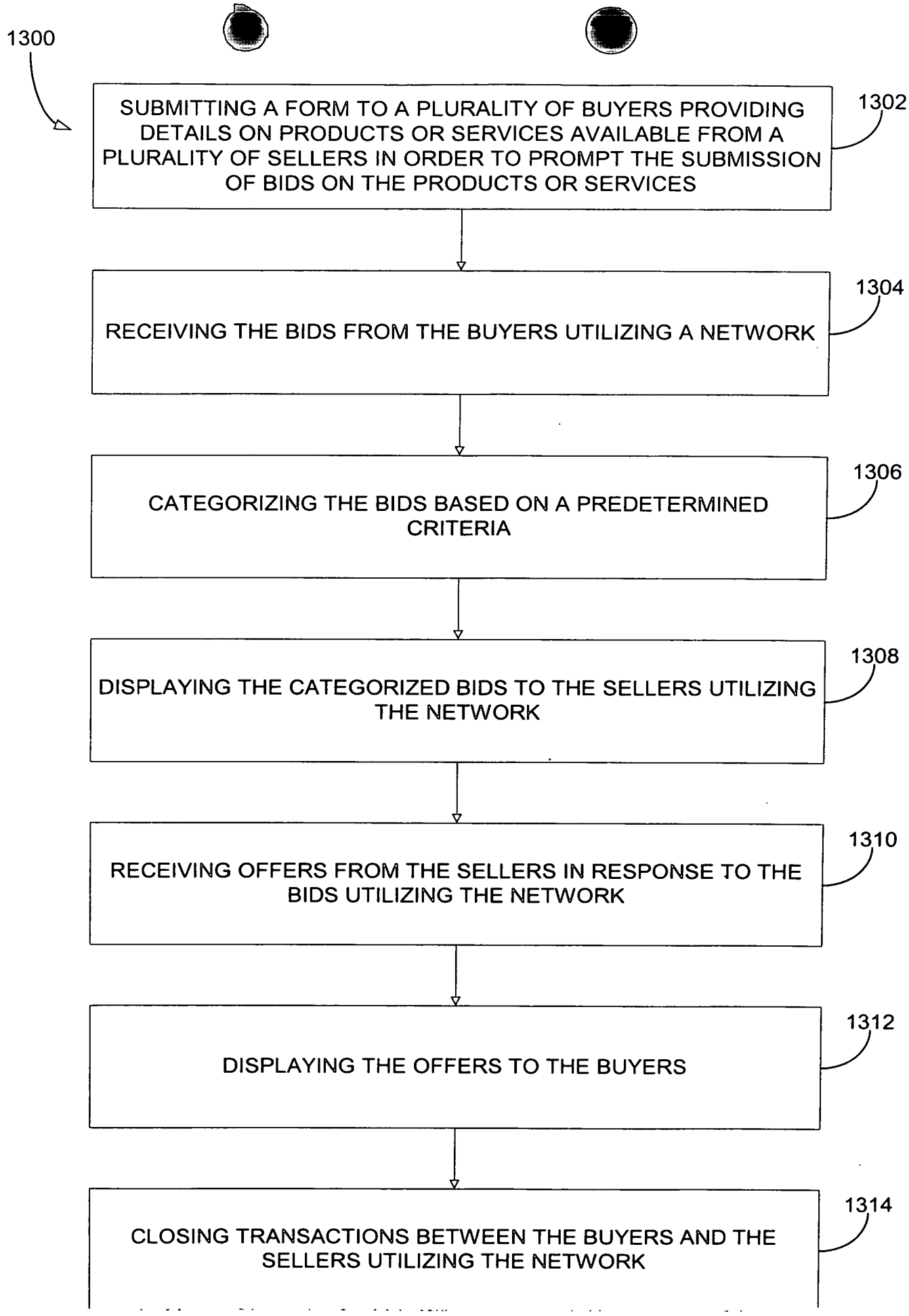

1300
SUBMITTING A FORM TO A PLURALITY OF BUYERS PROVIDING DETAILS ON PRODUCTS OR SERVICES AVAILABLE FROM A PLURALITY OF SELLERS IN ORDER TO PROMPT THE SUBMISSION OF BIDS ON THE PRODUCTS OR SERVICES
1302
RECEIVING THE BIDS FROM THE BUYERS UTILIZING A NETWORK
1304
CATEGORIZING THE BIDS BASED ON A PREDETERMINED CRITERIA
1306
DISPLAYING THE CATEGORIZED BIDS TO THE SELLERS UTILIZING THE NETWORK
1308
RECEIVING OFFERS FROM THE SELLERS IN RESPONSE TO THE BIDS UTILIZING THE NETWORK
1310
DISPLAYING THE OFFERS TO THE BUYERS
1312
CLOSING TRANSACTIONS BETWEEN THE BUYERS AND THE SELLERS UTILIZING THE NETWORK
1314

Figure 13

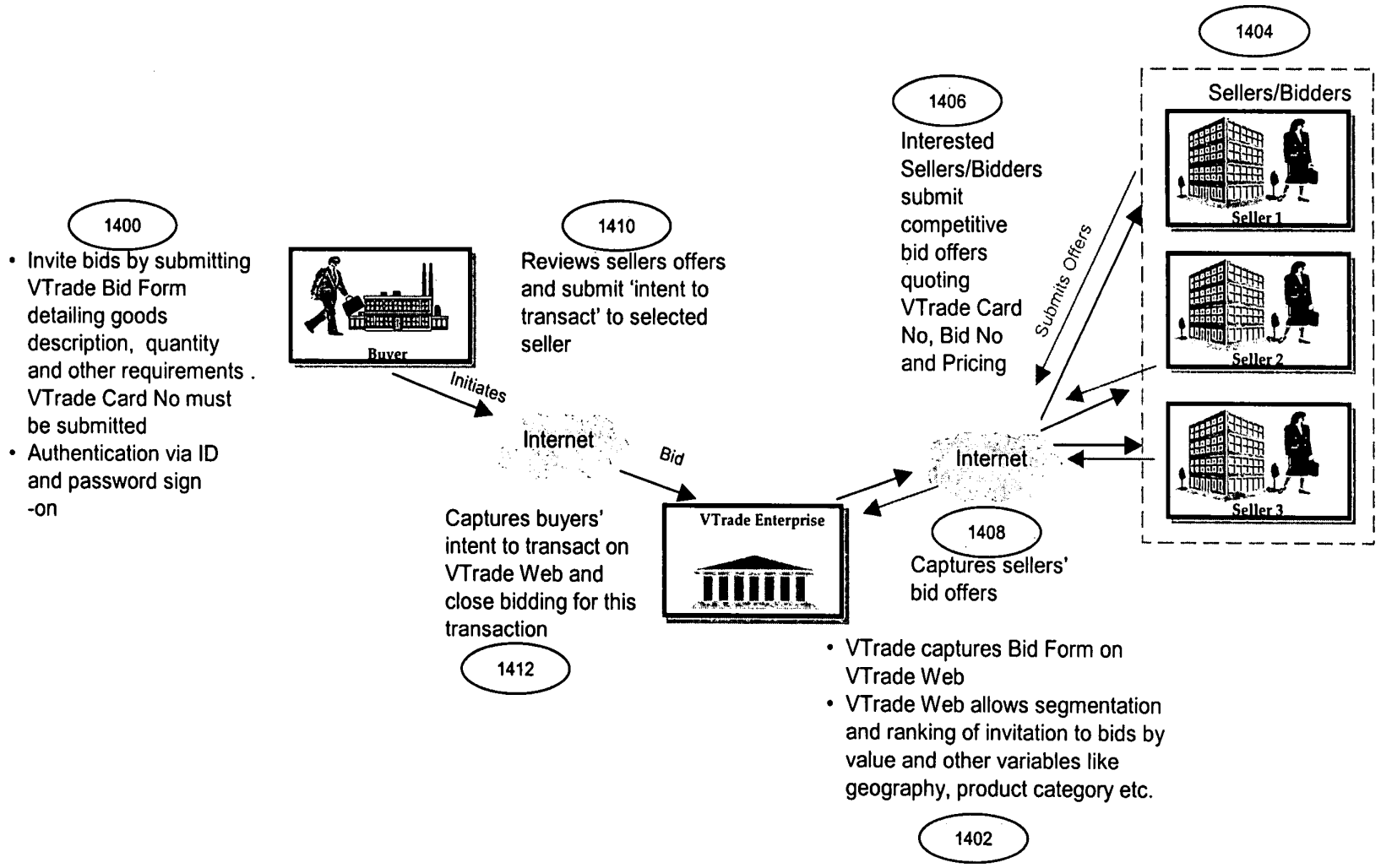

1400
• Invite bids by submitting VTrade Bid Form detailing goods description, quantity and other requirements . VTrade Card No must be submitted
• Authentication via ID and password sign -on
Buyer
Initiates
1410
Reviews sellers offers and submit 'intent to transact' to selected seller
Internet
Bid
Captures buyers' intent to transact on VTrade Web and close bidding for this transaction
1412
VTrade Enterprise
1406
Interested Sellers/Bidders submit competitive bid offers quoting VTrade Card No, Bid No and Pricing
Submits Offers
Internet
1408
Captures sellers' bid offers
1404
Sellers/Bidders
Seller 1
Seller 2
Seller 3
• VTrade captures Bid Form on VTrade Web
• VTrade Web allows segmentation and ranking of invitation to bids by value and other variables like geography, product category etc.
1402

Figure 14

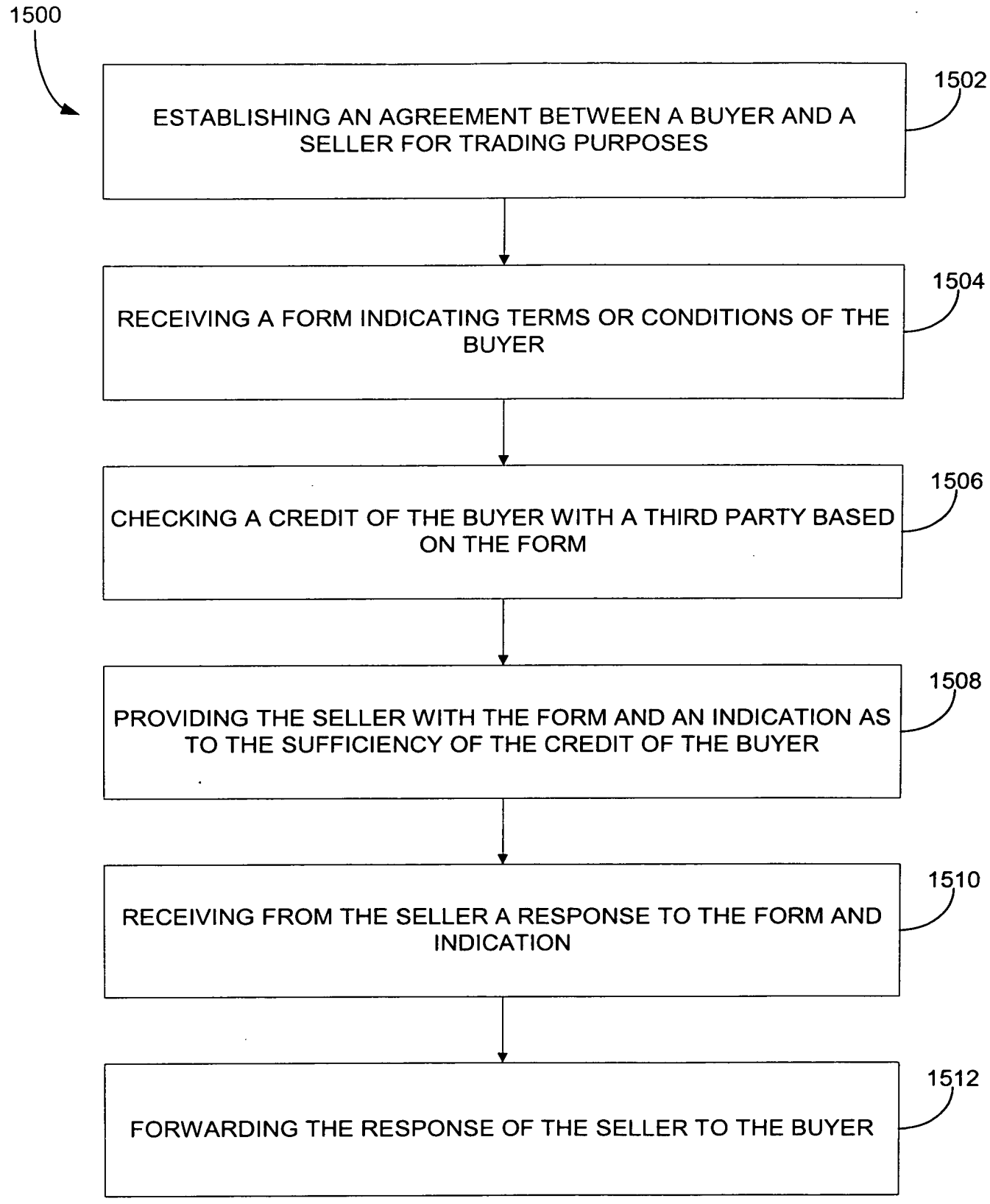

1500
ESTABLISHING AN AGREEMENT BETWEEN A BUYER AND A SELLER FOR TRADING PURPOSES
1502
RECEIVING A FORM INDICATING TERMS OR CONDITIONS OF THE BUYER
1504
CHECKING A CREDIT OF THE BUYER WITH A THIRD PARTY BASED ON THE FORM
1506
PROVIDING THE SELLER WITH THE FORM AND AN INDICATION AS TO THE SUFFICIENCY OF THE CREDIT OF THE BUYER
1508
RECEIVING FROM THE SELLER A RESPONSE TO THE FORM AND INDICATION
1510
FORWARDING THE RESPONSE OF THE SELLER TO THE BUYER
1512

Figure 15

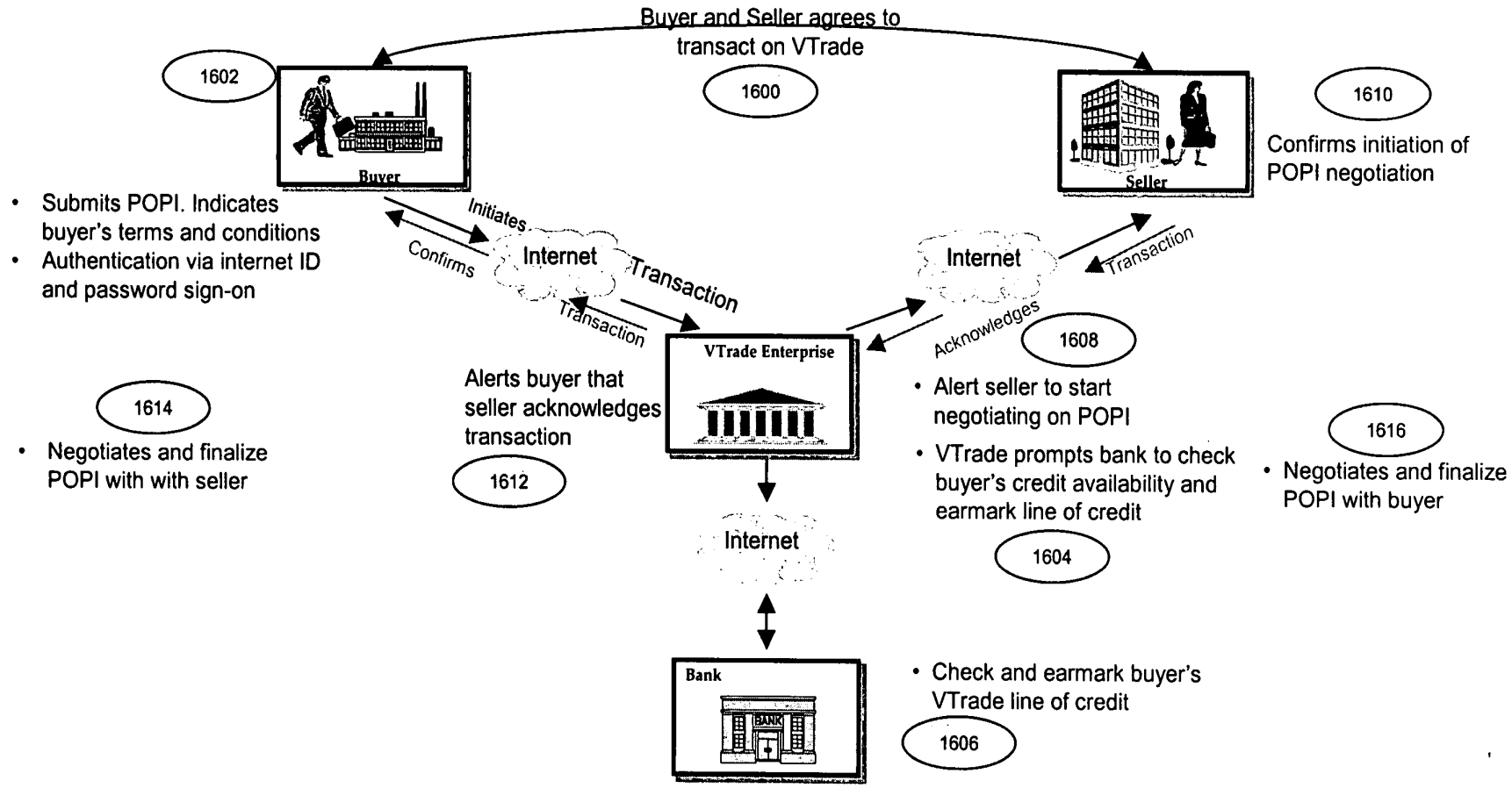

Buyer and Seller agrees to transact on VTrade
1600
1602
Buyer
Seller
1610
Confirms initiation of POPI negotiation
• Submits POPI. Indicates buyer's terms and conditions
• Authentication via internet ID and password sign-on
Initiates
Confirms
Internet
Transaction
Transaction
Internet
Transaction
Acknowledges
1608
VTrade Enterprise
Alerts buyer that seller acknowledges transaction
1612
• Alert seller to start negotiating on POPI
• VTrade prompts bank to check buyer's credit availability and earmark line of credit
1604
1614
• Negotiates and finalize POPI with with seller
1616
• Negotiates and finalize POPI with buyer
Internet
Bank
BANK
• Check and earmark buyer's VTrade line of credit
1606

Figure 16

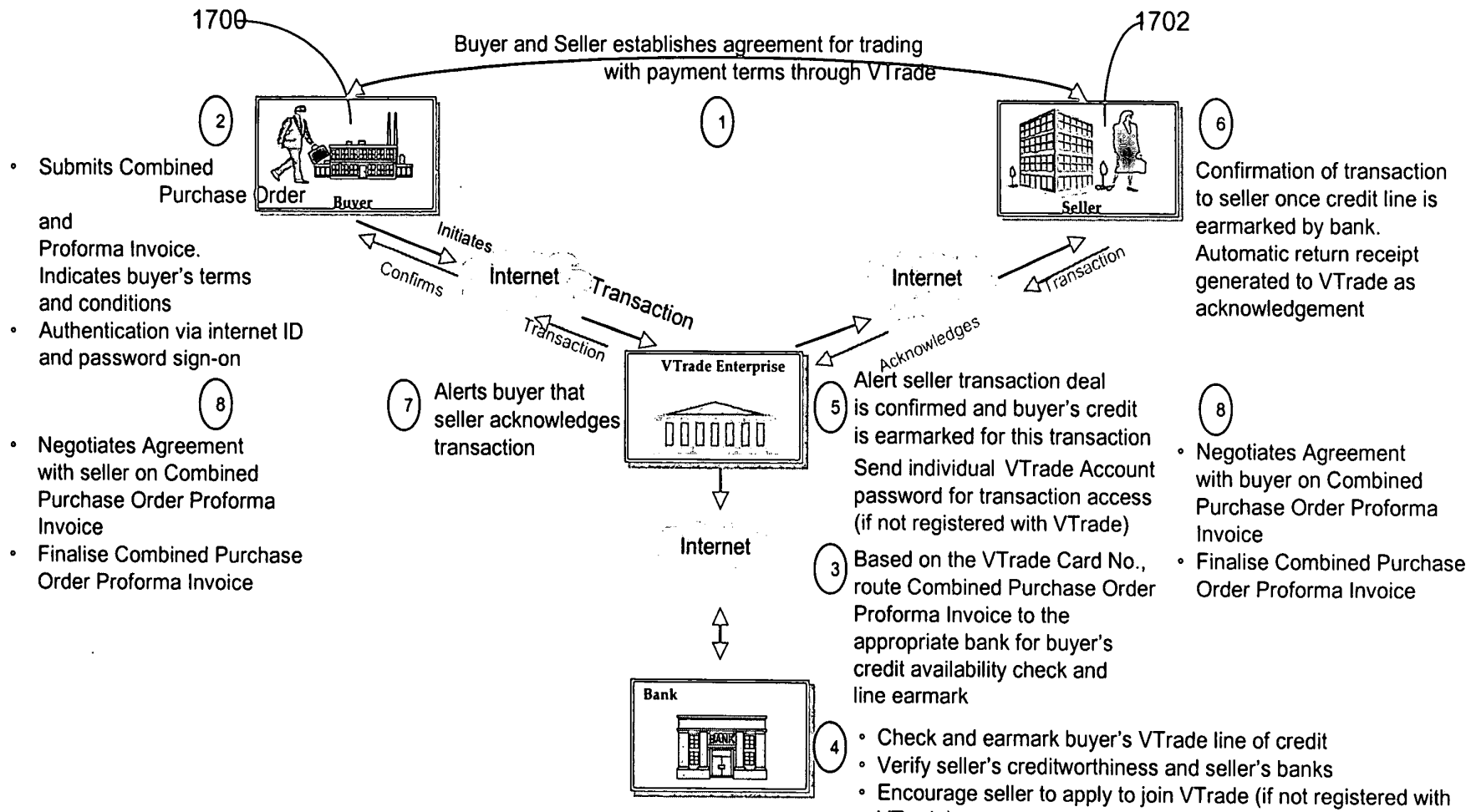

1700
1702
Buyer and Seller establishes agreement for trading with payment terms through VTrade
1
2
Submits Combined Purchase Order and Proforma Invoice. Indicates buyer's terms and conditions
Authentication via internet ID and password sign-on
Buyer
Initiates
Confirms
Internet
Transaction
Transaction
Internet
Transaction
Seller
6
Confirmation of transaction to seller once credit line is earmarked by bank. Automatic return receipt generated to VTrade as acknowledgement
VTrade Enterprise
Acknowledges
7
Alerts buyer that seller acknowledges transaction
5
Alert seller transaction deal is confirmed and buyer's credit is earmarked for this transaction
Send individual VTrade Account password for transaction access (if not registered with VTrade)
8
Negotiates Agreement with seller on Combined Purchase Order Proforma Invoice
Finalise Combined Purchase Order Proforma Invoice
8
Negotiates Agreement with buyer on Combined Purchase Order Proforma Invoice
Finalise Combined Purchase Order Proforma Invoice
Internet
3
Based on the VTrade Card No., route Combined Purchase Order Proforma Invoice to the appropriate bank for buyer's credit availability check and line earmark
Bank
4
Check and earmark buyer's VTrade line of credit
Verify seller's creditworthiness and seller's banks
Encourage seller to apply to join VTrade (if not registered with VTrade)

Figure 17

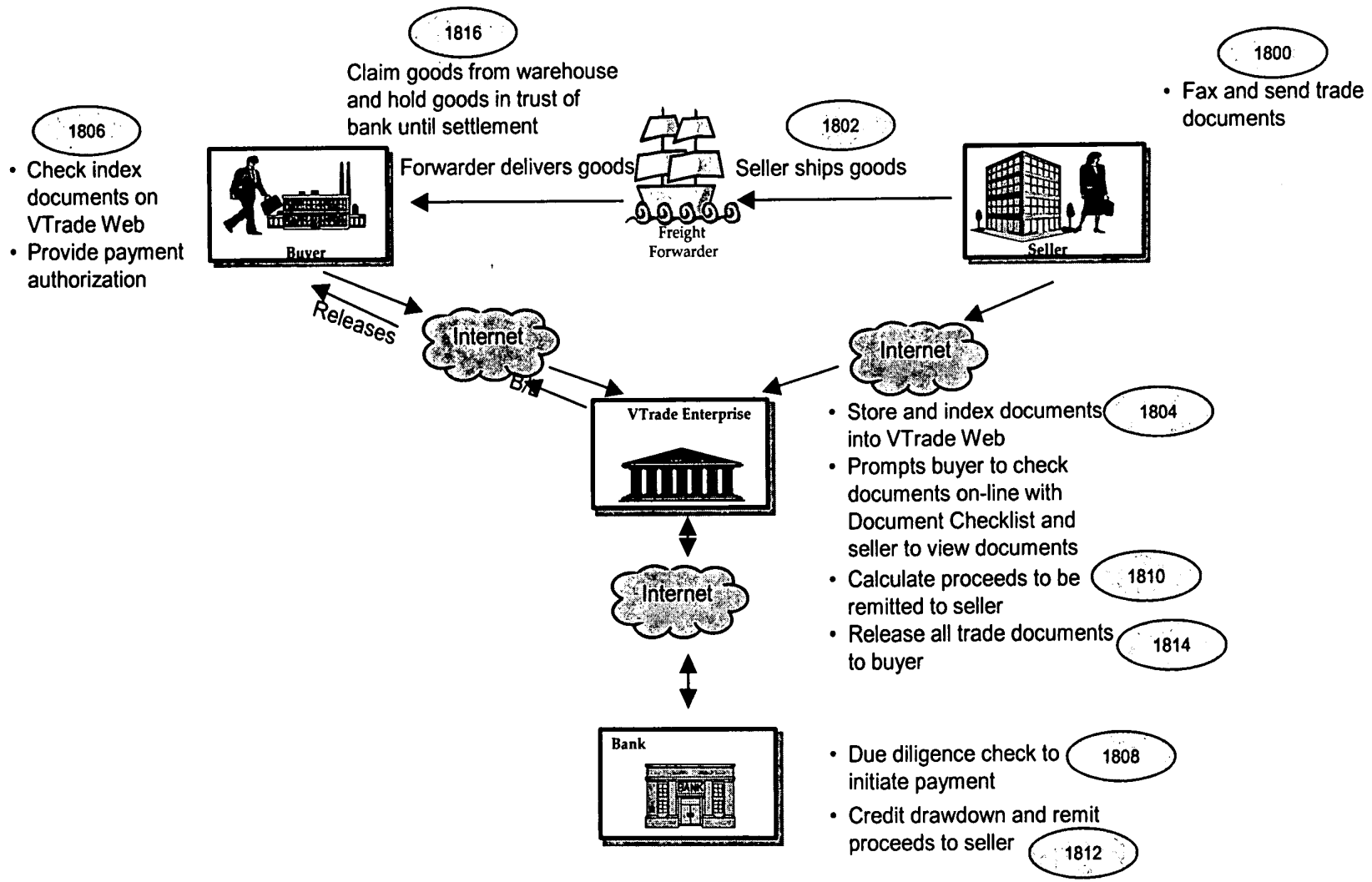

1816
Claim goods from warehouse and hold goods in trust of bank until settlement
1800
• Fax and send trade documents
1806
• Check index documents on VTrade Web
• Provide payment authorization
Forwarder delivers goods
1802
Seller ships goods
Buyer
Freight Forwarder
Seller
Releases
Internet
Internet
VTrade Enterprise
• Store and index documents into VTrade Web
1804
• Prompts buyer to check documents on-line with Document Checklist and seller to view documents
• Calculate proceeds to be remitted to seller
1810
• Release all trade documents to buyer
1814
Internet
Bank
• Due diligence check to initiate payment
1808
• Credit drawdown and remit proceeds to seller
1812

Figure 18

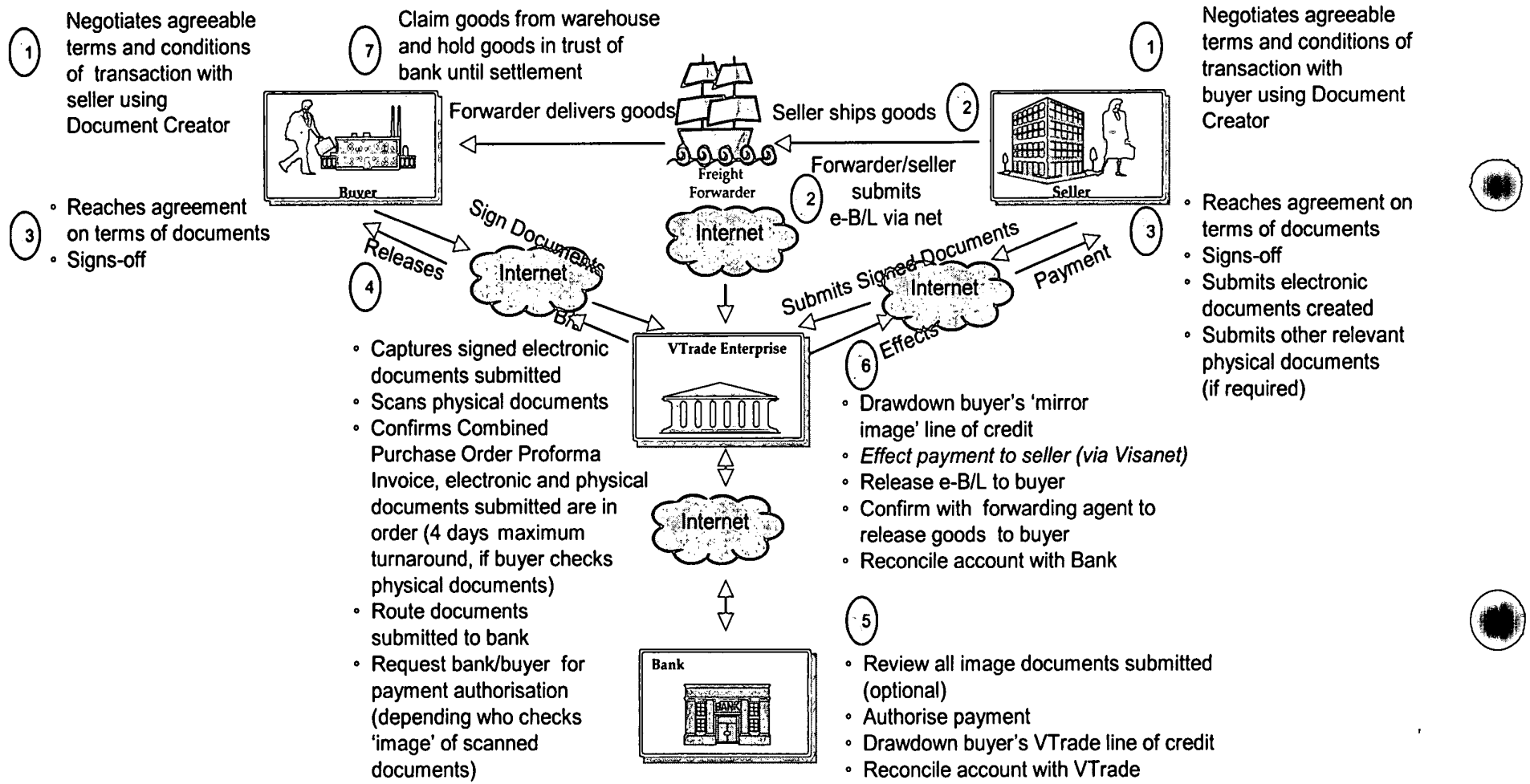

1
Negotiates agreeable terms and conditions of transaction with seller using Document Creator
7
Claim goods from warehouse and hold goods in trust of bank until settlement
Forwarder delivers goods
Seller ships goods
2
1
Negotiates agreeable terms and conditions of transaction with buyer using Document Creator
Buyer
Freight Forwarder
Seller
3
Reaches agreement on terms of documents
Signs-off
Sign Documents
Releases
4
Internet
2
Forwarder/seller submits e-B/L via net
Internet
Submits Signed Documents
Payment
3
Reaches agreement on terms of documents
Signs-off
Submits electronic documents created
Submits other relevant physical documents (if required)
B/L
VTrade Enterprise
6
Effects
Captures signed electronic documents submitted
Scans physical documents
Confirms Combined Purchase Order Proforma Invoice, electronic and physical documents submitted are in order (4 days maximum turnaround, if buyer checks physical documents)
Route documents submitted to bank
Request bank/buyer for payment authorisation (depending who checks 'image' of scanned documents)
Drawdown buyer's 'mirror image' line of credit
Effect payment to seller (via Visanet)
Release e-B/L to buyer
Confirm with forwarding agent to release goods to buyer
Reconcile account with Bank
Internet
Bank
5
Review all image documents submitted (optional)
Authorise payment
Drawdown buyer's VTrade line of credit
Reconcile account with VTrade

Figure 19

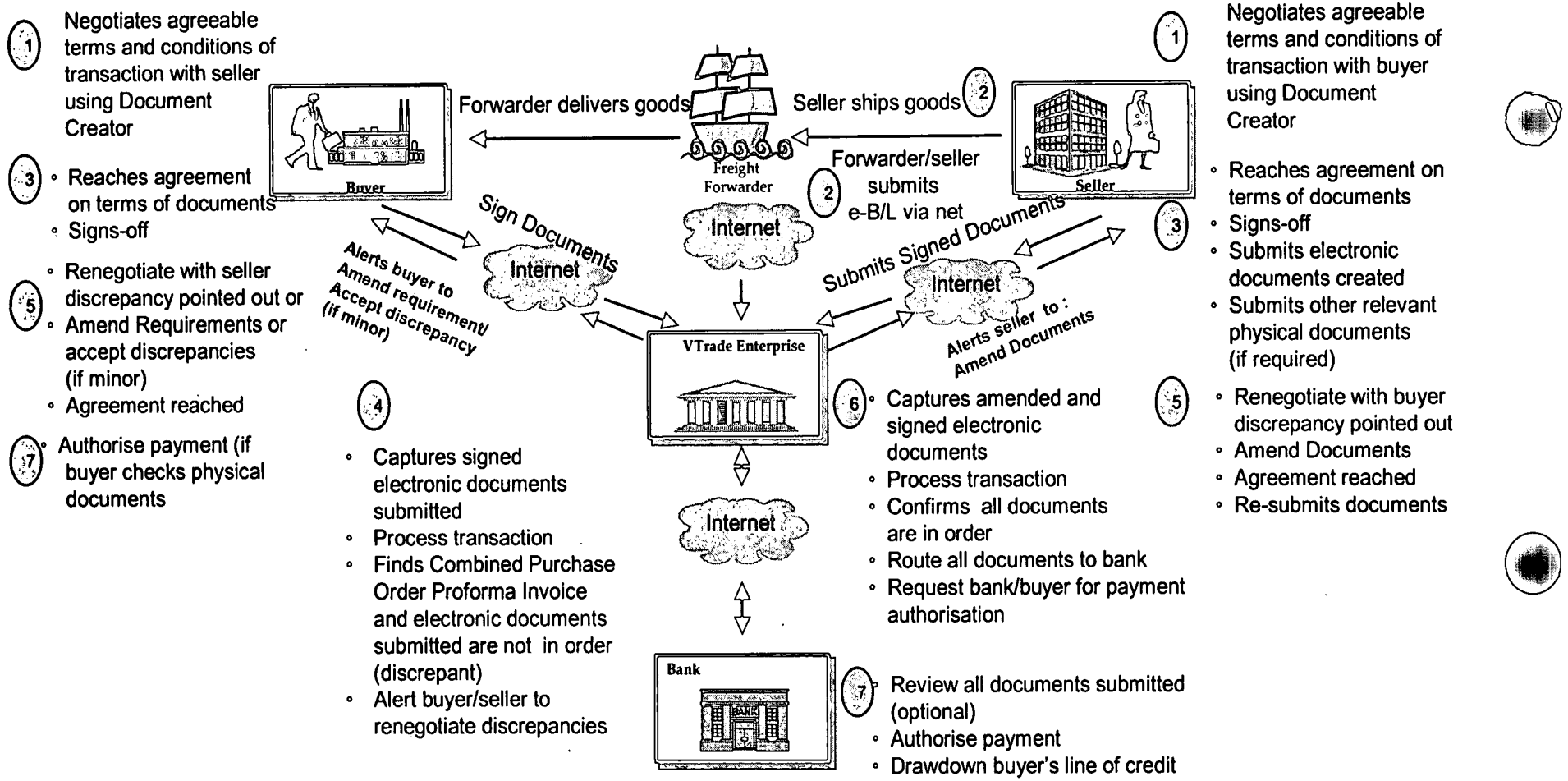

1
Negotiates agreeable terms and conditions of transaction with seller using Document Creator
3
◦ Reaches agreement on terms of documents
◦ Signs-off
5
◦ Renegotiate with seller discrepancy pointed out or
◦ Amend Requirements or accept discrepancies (if minor)
◦ Agreement reached
7
◦ Authorise payment (if buyer checks physical documents
Buyer
Forwarder delivers goods
Freight Forwarder
Seller ships goods
2
Forwarder/seller submits e-B/L via net
Internet
Sign Documents
Internet
Alerts buyer to Amend requirement/ Accept discrepancy (if minor)
Submits Signed Documents
Internet
Alerts seller to : Amend Documents
VTrade Enterprise
4
◦ Captures signed electronic documents submitted
◦ Process transaction
◦ Finds Combined Purchase Order Proforma Invoice and electronic documents submitted are not in order (discrepant)
◦ Alert buyer/seller to renegotiate discrepancies
Internet
6
◦ Captures amended and signed electronic documents
◦ Process transaction
◦ Confirms all documents are in order
◦ Route all documents to bank
◦ Request bank/buyer for payment authorisation
Bank
7
Review all documents submitted (optional)
◦ Authorise payment
◦ Drawdown buyer's line of credit
1
Negotiates agreeable terms and conditions of transaction with buyer using Document Creator
◦ Reaches agreement on terms of documents
◦ Signs-off
◦ Submits electronic documents created
◦ Submits other relevant physical documents (if required)
5
◦ Renegotiate with buyer discrepancy pointed out
◦ Amend Documents
◦ Agreement reached
◦ Re-submits documents

Figure 20

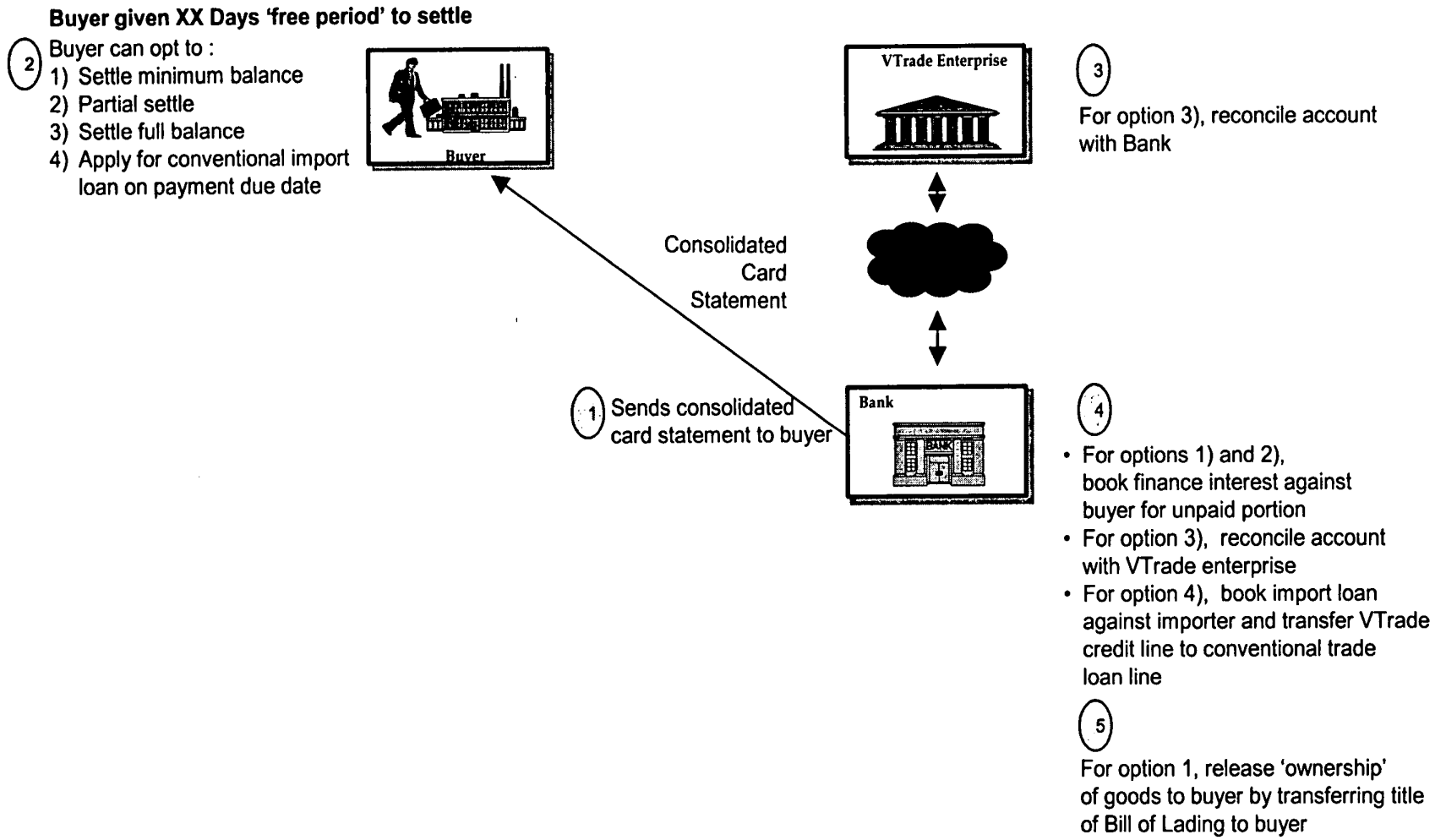

Buyer given XX Days 'free period' to settle
2
Buyer can opt to :
1) Settle minimum balance
2) Partial settle
3) Settle full balance
4) Apply for conventional import loan on payment due date
Buyer
VTrade Enterprise
3
For option 3), reconcile account with Bank
Consolidated Card Statement
1
Sends consolidated card statement to buyer
Bank
4
• For options 1) and 2), book finance interest against buyer for unpaid portion
• For option 3), reconcile account with VTrade enterprise
• For option 4), book import loan against importer and transfer VTrade credit line to conventional trade loan line
5
For option 1, release 'ownership' of goods to buyer by transferring title of Bill of Lading to buyer

Figure 21

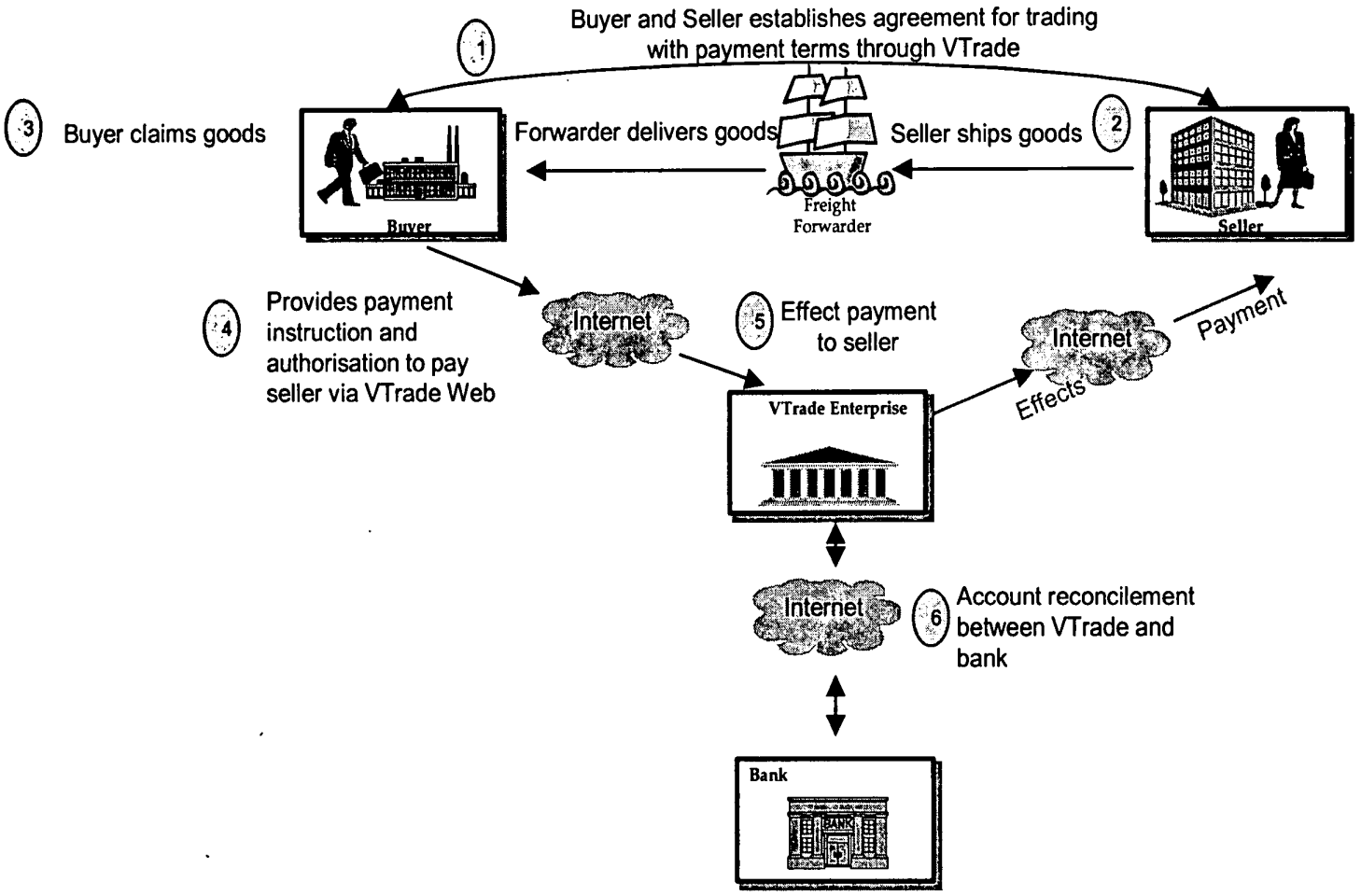

Buyer and Seller establishes agreement for trading with payment terms through VTrade
1
2
3
Buyer claims goods
Forwarder delivers goods
Seller ships goods
Buyer
Freight Forwarder
Seller
4
Provides payment instruction and authorisation to pay seller via VTrade Web
Internet
5
Effect payment to seller
Internet
Payment
Effects
VTrade Enterprise
Internet
6
Account reconcilement between VTrade and bank
Bank

Figure 22

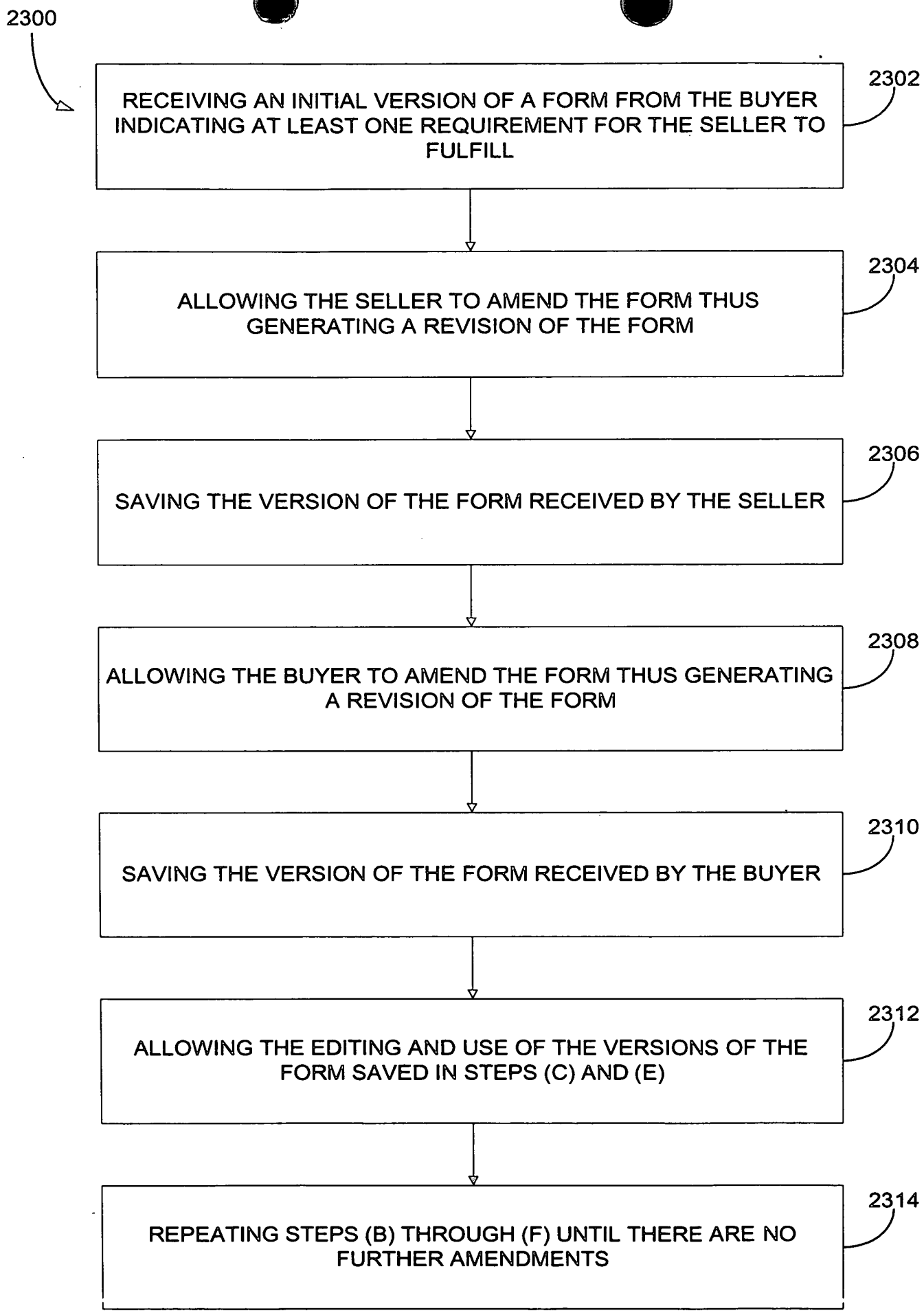

2300
RECEIVING AN INITIAL VERSION OF A FORM FROM THE BUYER INDICATING AT LEAST ONE REQUIREMENT FOR THE SELLER TO FULFILL
2302
ALLOWING THE SELLER TO AMEND THE FORM THUS GENERATING A REVISION OF THE FORM
2304
SAVING THE VERSION OF THE FORM RECEIVED BY THE SELLER
2306
ALLOWING THE BUYER TO AMEND THE FORM THUS GENERATING A REVISION OF THE FORM
2308
SAVING THE VERSION OF THE FORM RECEIVED BY THE BUYER
2310
ALLOWING THE EDITING AND USE OF THE VERSIONS OF THE FORM SAVED IN STEPS (C) AND (E)
2312
REPEATING STEPS (B) THROUGH (F) UNTIL THERE ARE NO FURTHER AMENDMENTS
2314

Figure 23

2400

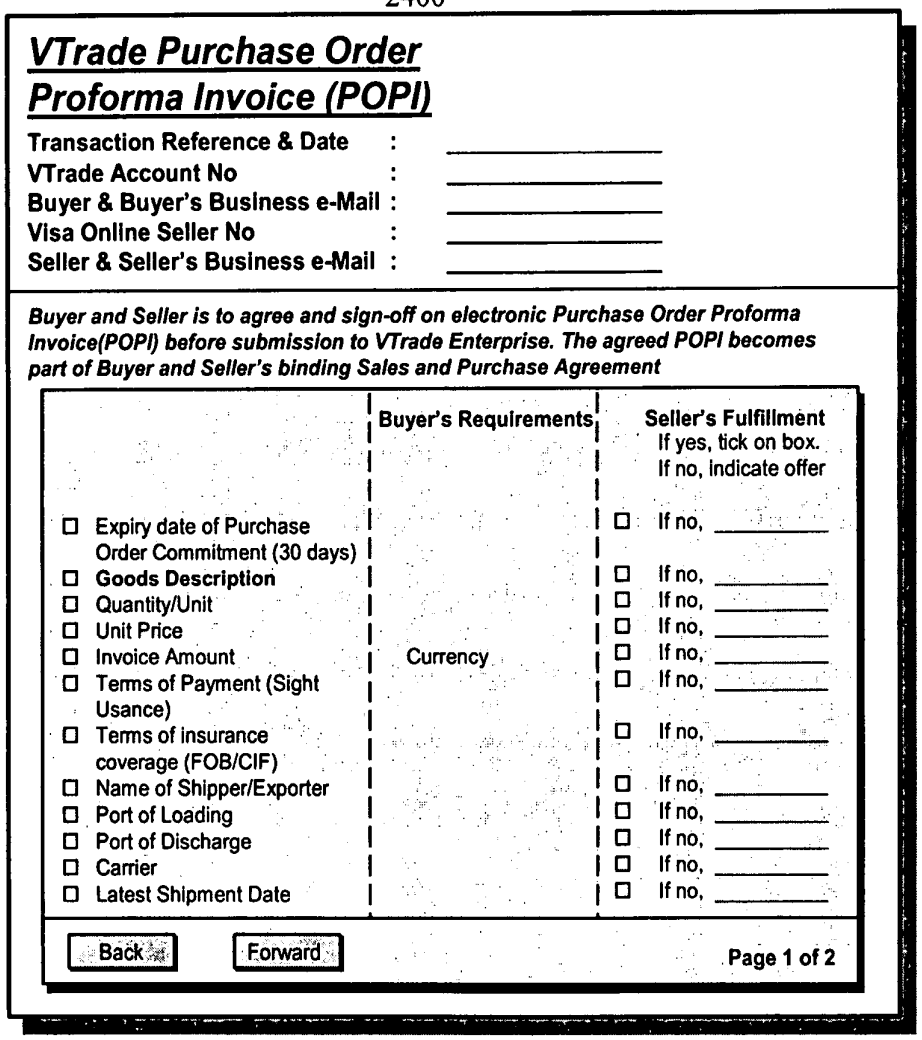


Figure 24A

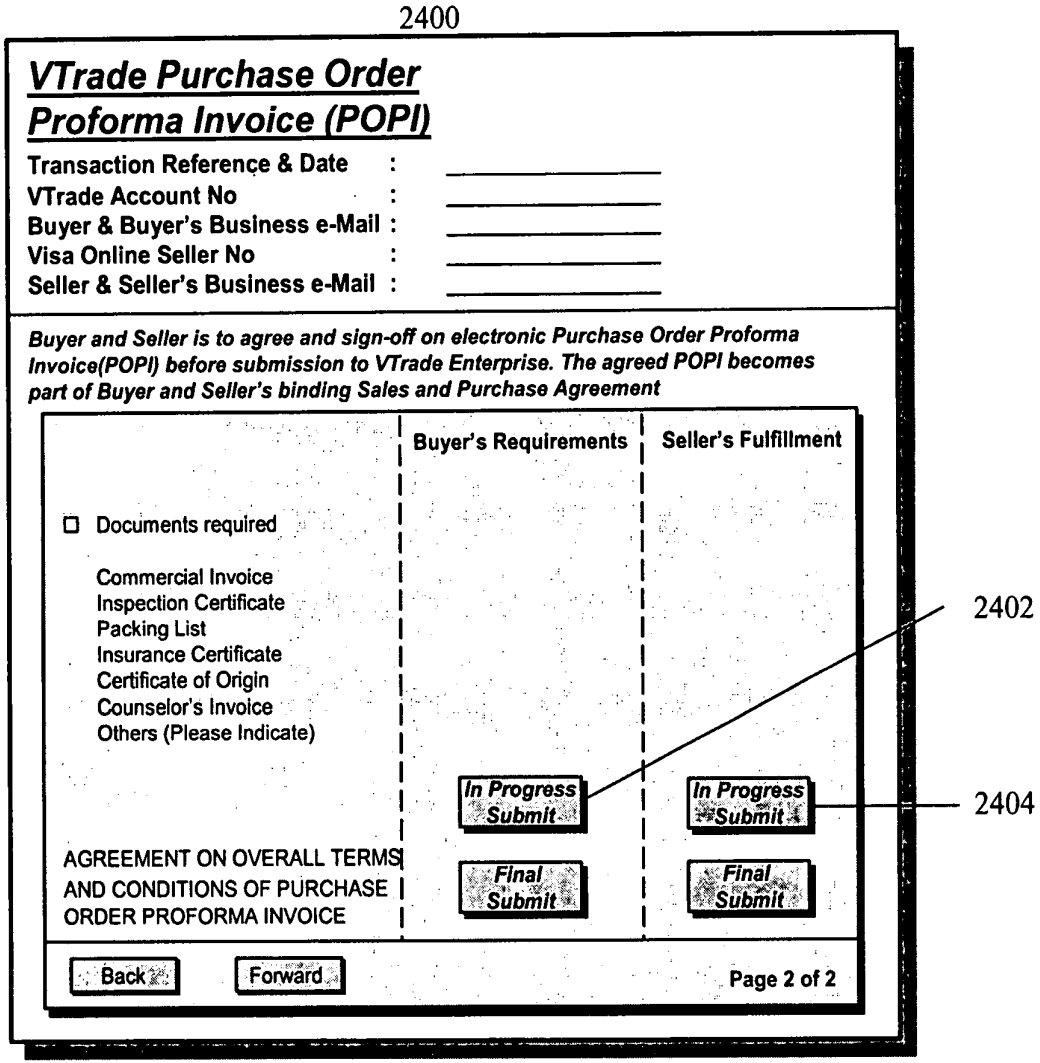

2400
VTrade Purchase Order
Proforma Invoice (POPI)
Transaction Reference & Date :
VTrade Account No :
Buyer & Buyer's Business e-Mail :
Visa Online Seller No :
Seller & Seller's Business e-Mail :
Buyer and Seller is to agree and sign-off on electronic Purchase Order Proforma Invoice(POPI) before submission to VTrade Enterprise. The agreed POPI becomes part of Buyer and Seller's binding Sales and Purchase Agreement
Buyer's Requirements
Seller's Fulfillment
Documents required
Commercial Invoice
Inspection Certificate
Packing List
Insurance Certificate
Certificate of Origin
Counselor's Invoice
Others (Please Indicate)
In Progress Submit
In Progress Submit
AGREEMENT ON OVERALL TERMS AND CONDITIONS OF PURCHASE ORDER PROFORMA INVOICE
Final Submit
Final Submit
Back
Forward
Page 2 of 2
2402
2404

Figure 24B

2500

VTrade Combined Purchase Order Proforma Invoice

Transaction Reference & Date : _____
VTrade Account No : _____
Buyer Name : _____
Visa Online Merchant No : _____
Merchant/Seller Name : _____

Buyer and Seller is to agree and sign-off on Combined Purchase Order Proforma Invoice before submission to VTrade Enterprise. This form also becomes part of Buyer and Seller's sales and purchase contract

	Buyer's Requirements	Seller's Fulfillment
☐ Expiry date of Purchase Order Commitment		
☐ **Goods Description**		
☐ Quantity/Unit		
☐ Unit Price		
☐ Invoice Amount		
☐ Terms of Payment		
☐ Terms of insurance coverage (FOB/CIF)		
☐ Name of Shipper/Exporter		
☐ Port of Loading		
☐ Port of Discharge		
☐ Carrier		
☐ Shipment Date		
☐ Documents required Inspection Certificate etc.		
AGREEMENT ON OVERALL TERMS AND CONDITIONS OF PURCHASE ORDER PROFORMA INVOICE	0	0

Figure 25

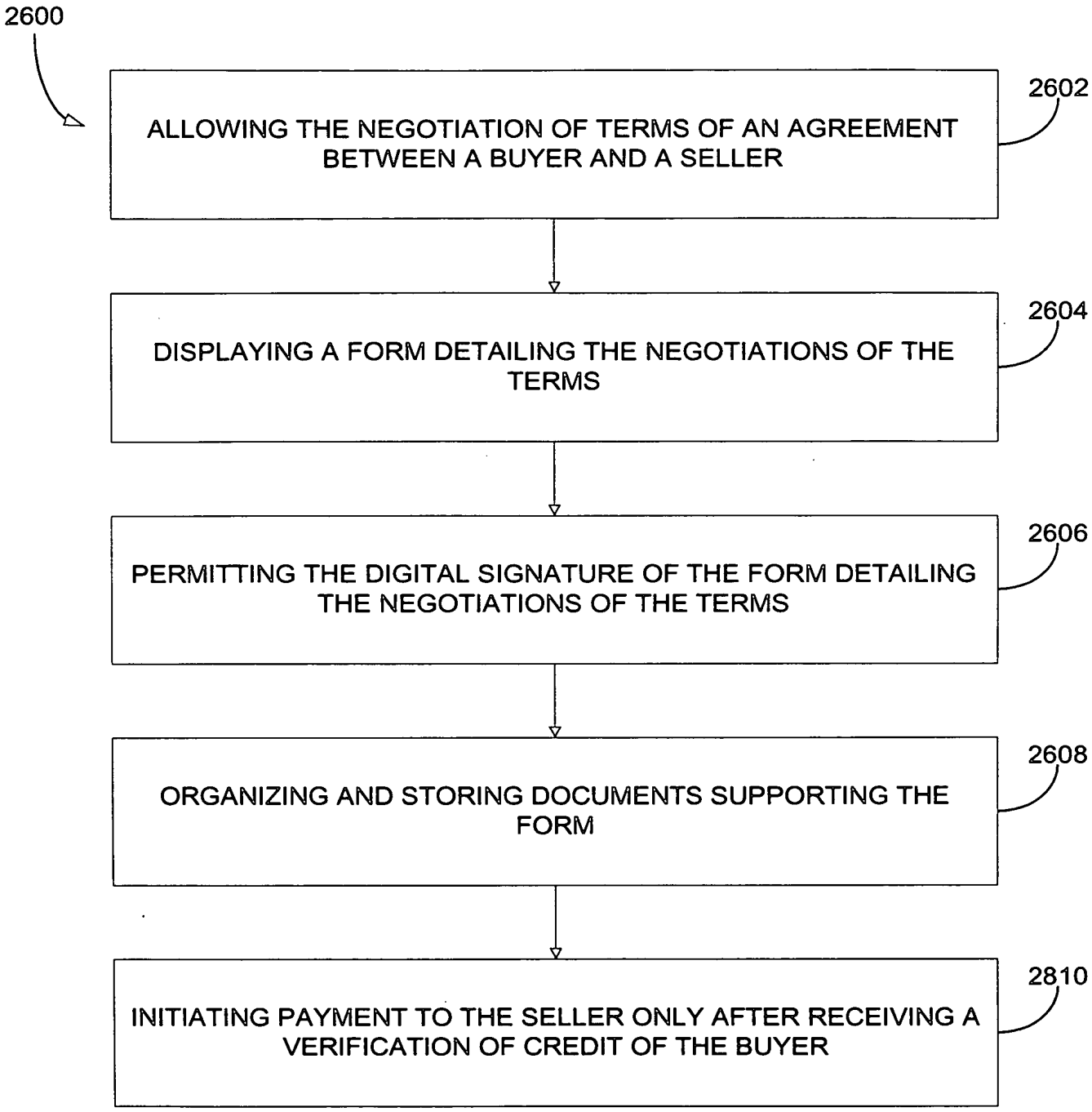

2600
ALLOWING THE NEGOTIATION OF TERMS OF AN AGREEMENT BETWEEN A BUYER AND A SELLER
2602
DISPLAYING A FORM DETAILING THE NEGOTIATIONS OF THE TERMS
2604
PERMITTING THE DIGITAL SIGNATURE OF THE FORM DETAILING THE NEGOTIATIONS OF THE TERMS
2606
ORGANIZING AND STORING DOCUMENTS SUPPORTING THE FORM
2608
INITIATING PAYMENT TO THE SELLER ONLY AFTER RECEIVING A VERIFICATION OF CREDIT OF THE BUYER
2810

Figure 26

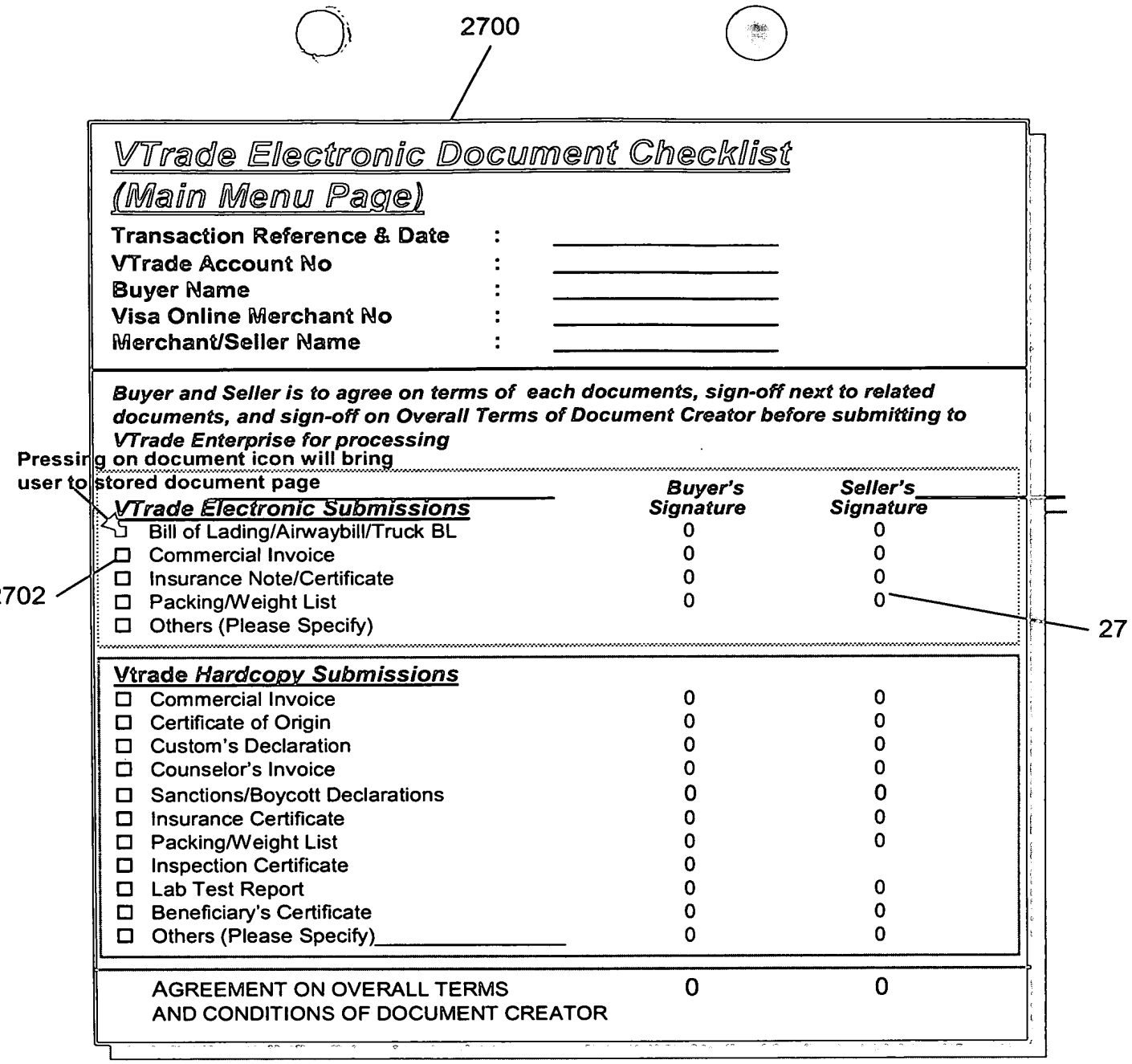

2700
VTrade Electronic Document Checklist
(Main Menu Page)
Transaction Reference & Date :
VTrade Account No :
Buyer Name :
Visa Online Merchant No :
Merchant/Seller Name :
Buyer and Seller is to agree on terms of each documents, sign-off next to related documents, and sign-off on Overall Terms of Document Creator before submitting to VTrade Enterprise for processing
Pressing on document icon will bring user to stored document page
2702
VTrade Electronic Submissions
Buyer's Signature
Seller's Signature
Bill of Lading/Airwaybill/Truck BL 0 0
Commercial Invoice 0 0
Insurance Note/Certificate 0 0
Packing/Weight List 0 0
Others (Please Specify)
27
Vtrade Hardcopy Submissions
Commercial Invoice 0 0
Certificate of Origin 0 0
Custom's Declaration 0 0
Counselor's Invoice 0 0
Sanctions/Boycott Declarations 0 0
Insurance Certificate 0 0
Packing/Weight List 0 0
Inspection Certificate 0
Lab Test Report 0 0
Beneficiary's Certificate 0 0
Others (Please Specify)_____ 0 0
AGREEMENT ON OVERALL TERMS AND CONDITIONS OF DOCUMENT CREATOR 0 0

Figure 27

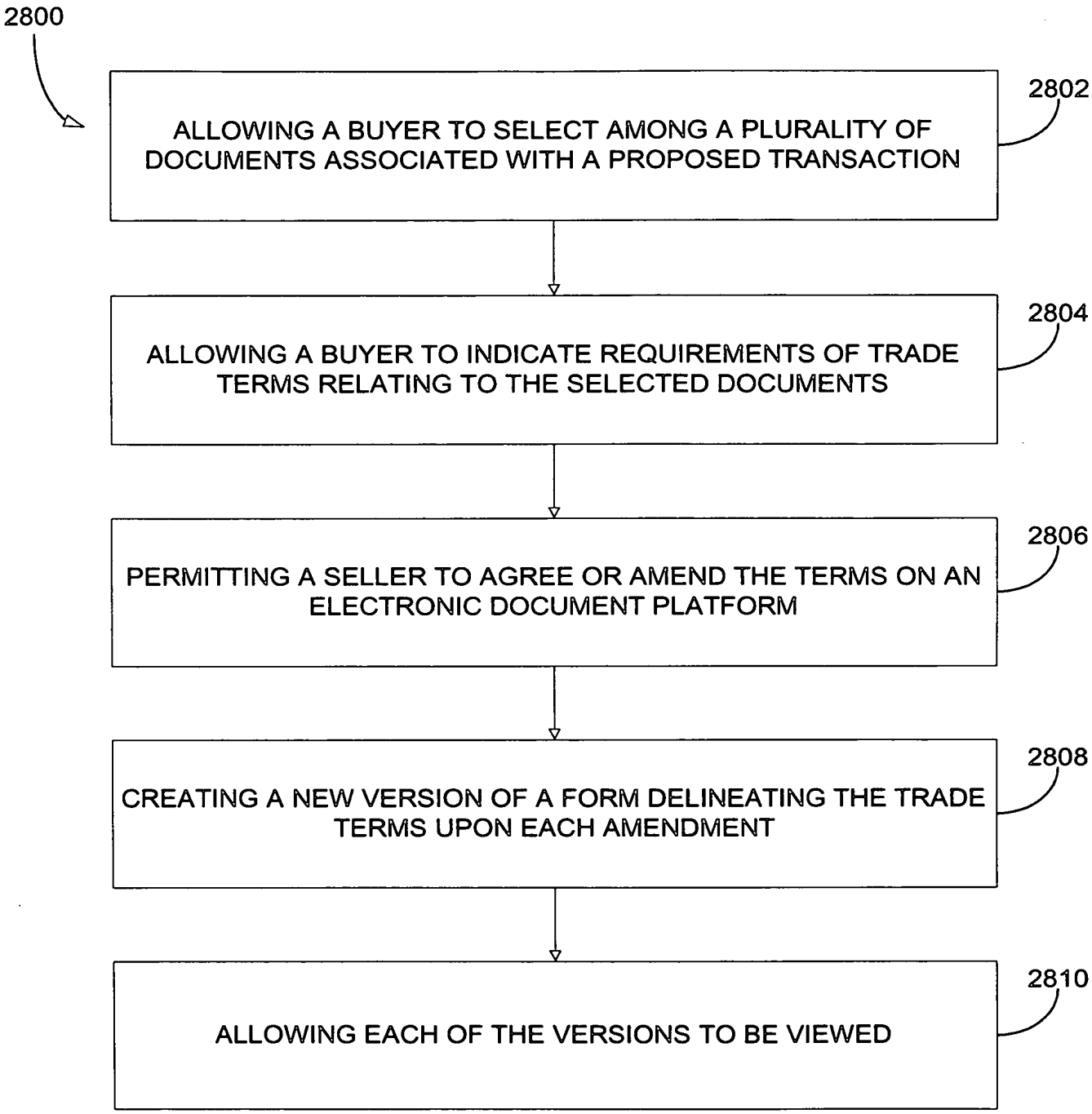

2800
ALLOWING A BUYER TO SELECT AMONG A PLURALITY OF DOCUMENTS ASSOCIATED WITH A PROPOSED TRANSACTION
2802
ALLOWING A BUYER TO INDICATE REQUIREMENTS OF TRADE TERMS RELATING TO THE SELECTED DOCUMENTS
2804
PERMITTING A SELLER TO AGREE OR AMEND THE TERMS ON AN ELECTRONIC DOCUMENT PLATFORM
2806
CREATING A NEW VERSION OF A FORM DELINEATING THE TRADE TERMS UPON EACH AMENDMENT
2808
ALLOWING EACH OF THE VERSIONS TO BE VIEWED
2810

Figure 28

2900

VTrade Electronic Document Creator (Document Page)

Transaction Reference & Date :
VTrade Card/Account No :
Buyer Name :
Visa Online Merchant No :
Seller Name :
Document Type : Bill Of Lading

Importer and Exporter is to negotiate and agree on terms of documents before signing -off on respective documents on Document Creator Main Menu

	Buyer's Requirements	Seller's Fulfillment
☐ Name of Shipper		
☐ Consigned to		
☐ Name of Vessel		
☐ Port of Loading		
☐ Port of Discharge		
☐ Place of Delivery		
☐ On Board Date		
☐ Clean On Board		
☐ Shipping Marks		
☐ No. of Packages		
☐ Description of Goods		
☐ Gross Weight		
☐ Measurements		
☐ Freight Charges		
☐ Prepaid		
☐ Collect		

ISSUER/MASTER/
CARRIER'S SIGNATURE 0 Date Signed

Figure 29

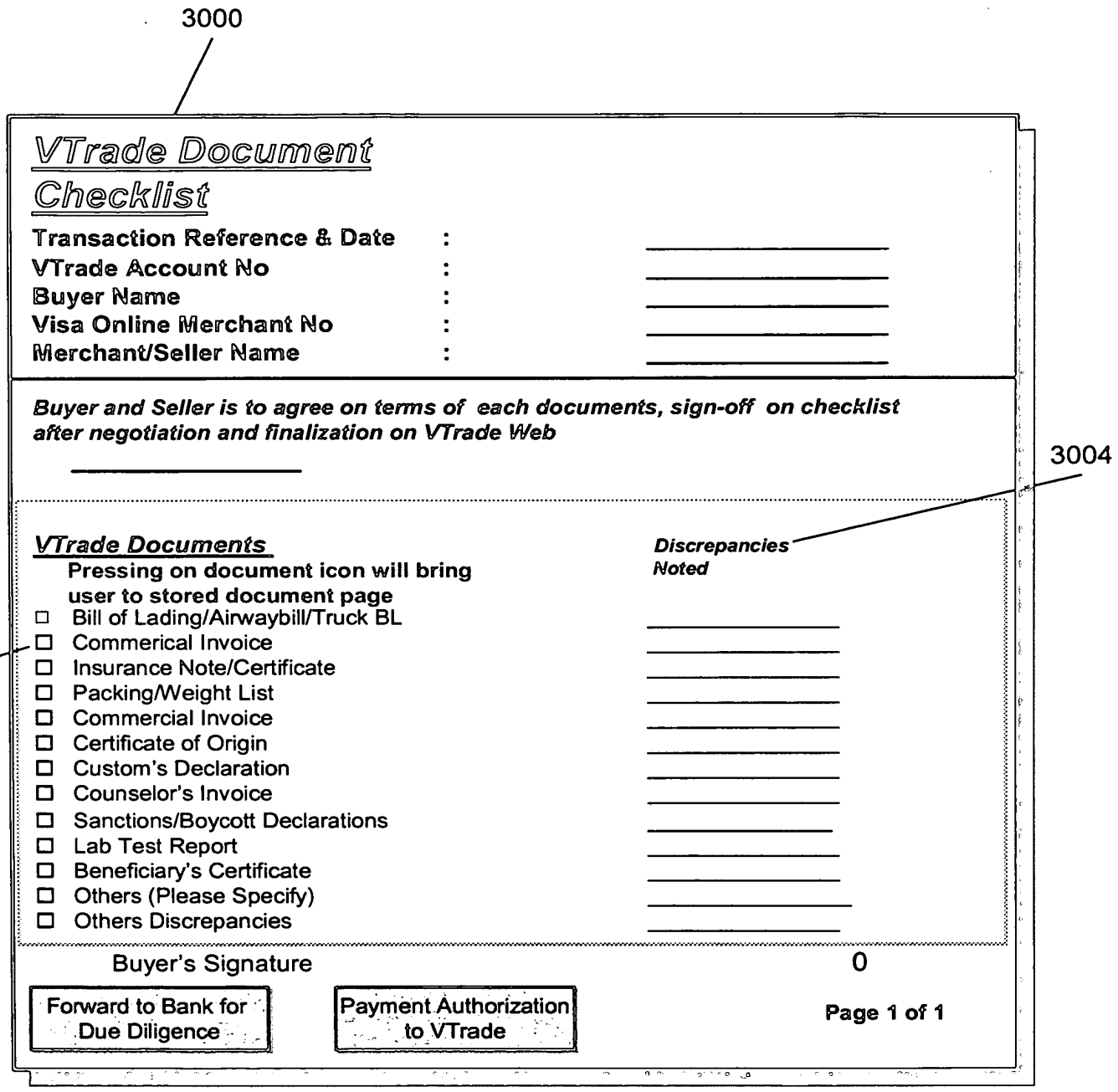

3000
VTrade Document Checklist
Transaction Reference & Date :
VTrade Account No :
Buyer Name :
Visa Online Merchant No :
Merchant/Seller Name :
Buyer and Seller is to agree on terms of each documents, sign-off on checklist after negotiation and finalization on VTrade Web
3004
VTrade Documents
Pressing on document icon will bring user to stored document page
Discrepancies Noted
Bill of Lading/Airwaybill/Truck BL
Commerical Invoice
Insurance Note/Certificate
Packing/Weight List
Commercial Invoice
Certificate of Origin
Custom's Declaration
Counselor's Invoice
Sanctions/Boycott Declarations
Lab Test Report
Beneficiary's Certificate
Others (Please Specify)
Others Discrepancies
Buyer's Signature
0
Forward to Bank for Due Diligence
Payment Authorization to VTrade
Page 1 of 1

Figure 30

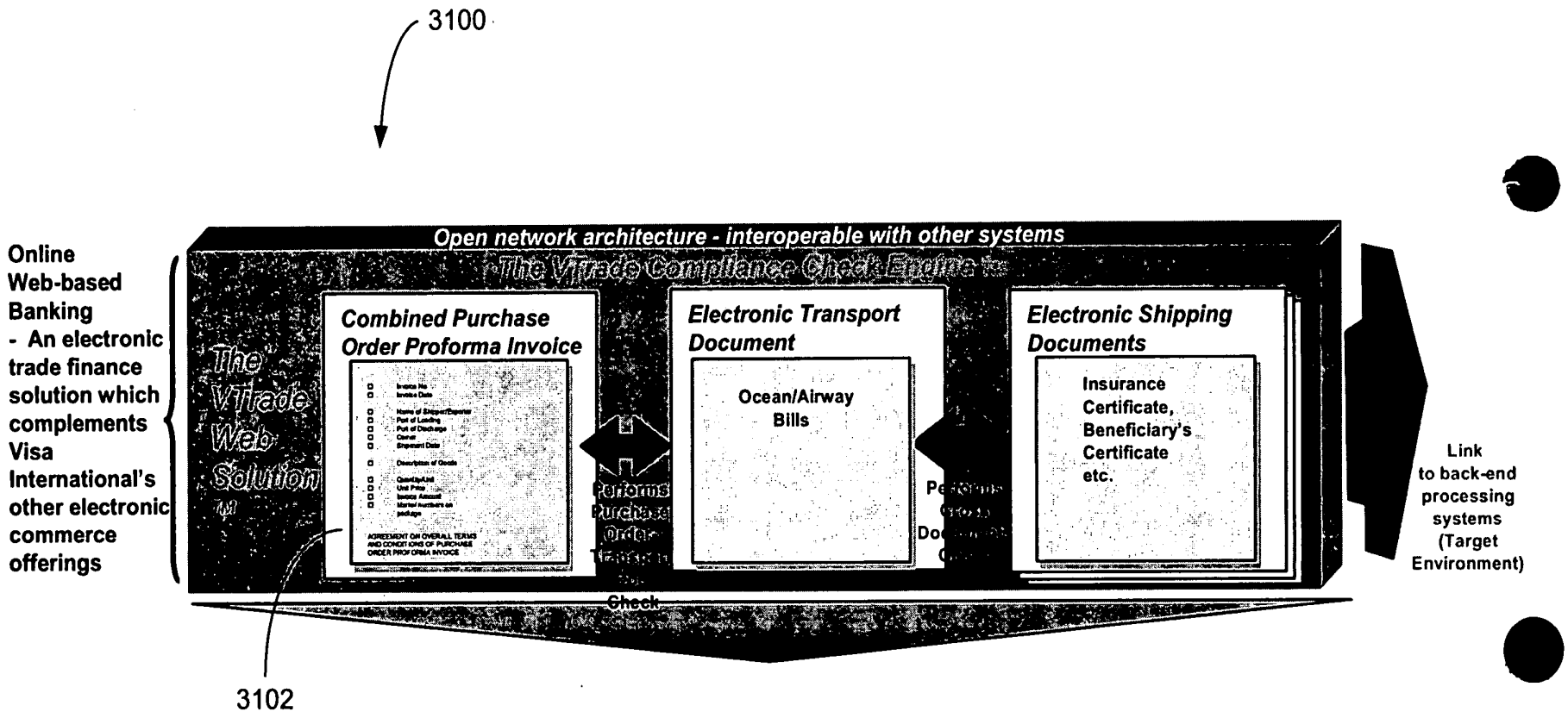

3100
Online Web-based Banking - An electronic trade finance solution which complements Visa International's other electronic commerce offerings
Open network architecture - interoperable with other systems
The VTrade Compliance Check Engine
The VTrade Web Solution
Combined Purchase Order Proforma Invoice
Electronic Transport Document
Ocean/Airway Bills
Electronic Shipping Documents
Insurance Certificate, Beneficiary's Certificate etc.
Link to back-end processing systems (Target Environment)
Check
3102

Figure 31

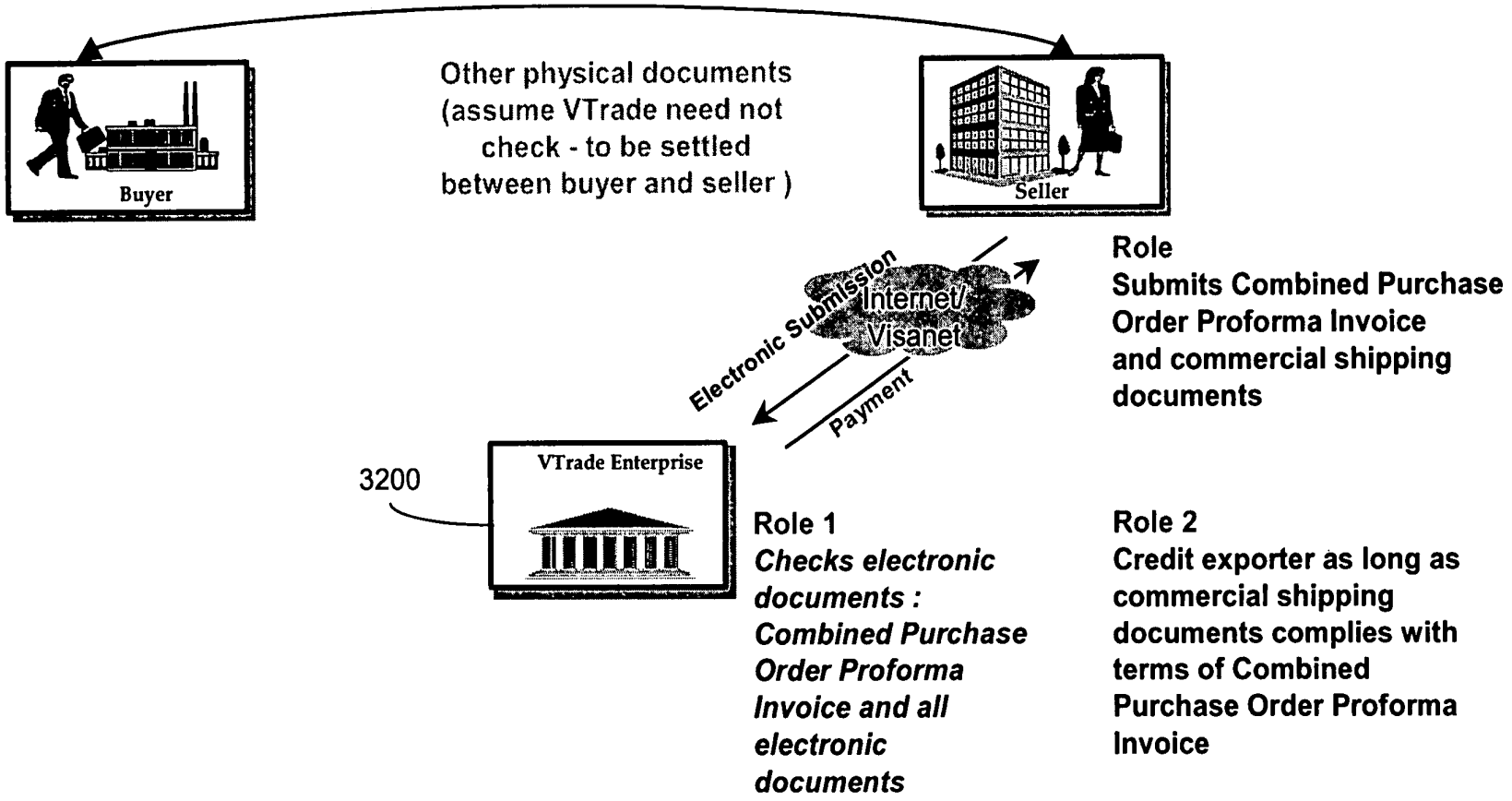

Buyer
Other physical documents
(assume VTrade need not
check - to be settled
between buyer and seller)
Seller
Role
Submits Combined Purchase
Order Proforma Invoice
and commercial shipping
documents
Electronic Submission
Internet/
Visanet
Payment
3200
VTrade Enterprise
Role 1
Checks electronic
documents :
Combined Purchase
Order Proforma
Invoice and all
electronic
documents
Role 2
Credit exporter as long as
commercial shipping
documents complies with
terms of Combined
Purchase Order Proforma
Invoice

Figure 32

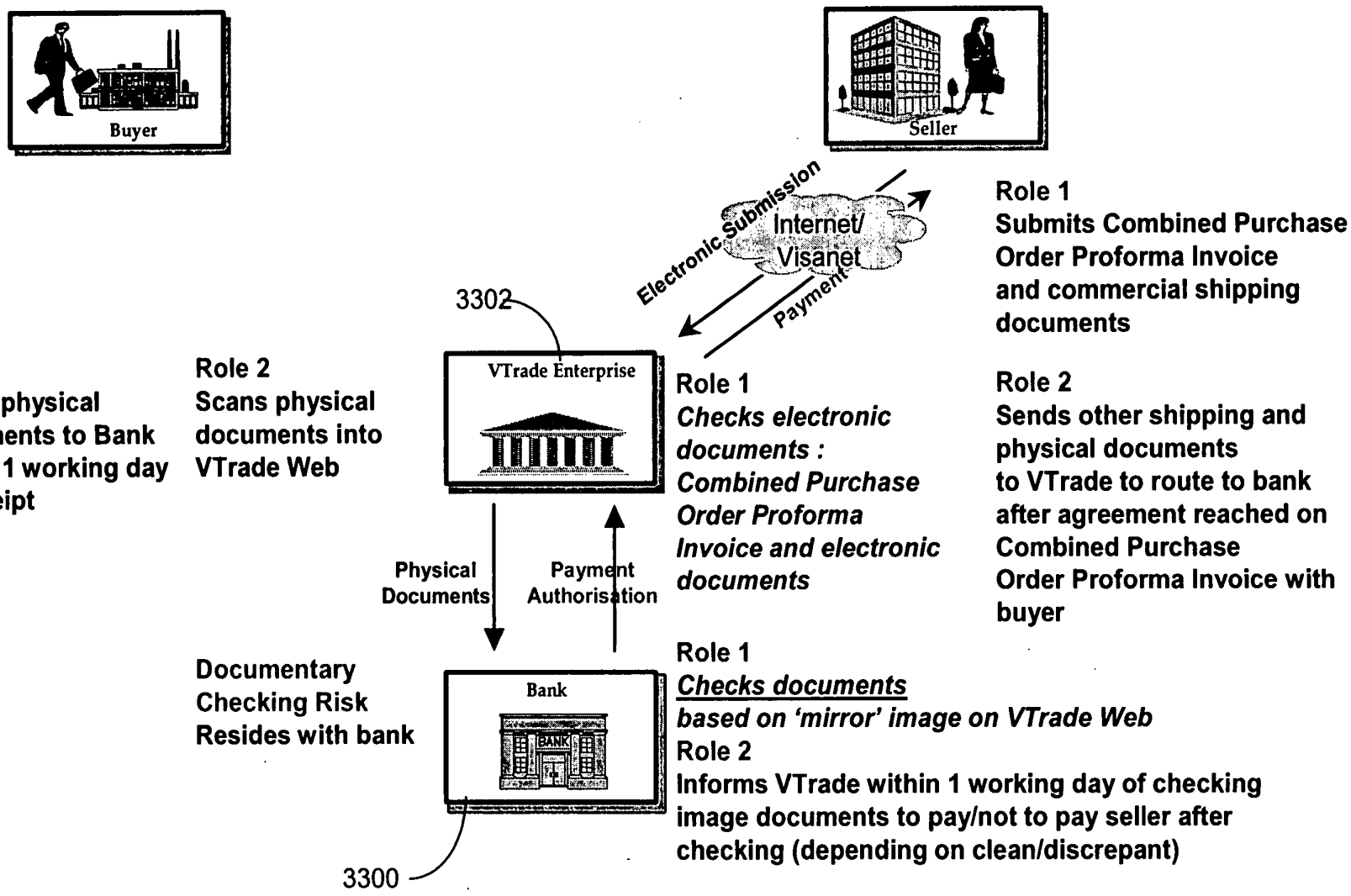
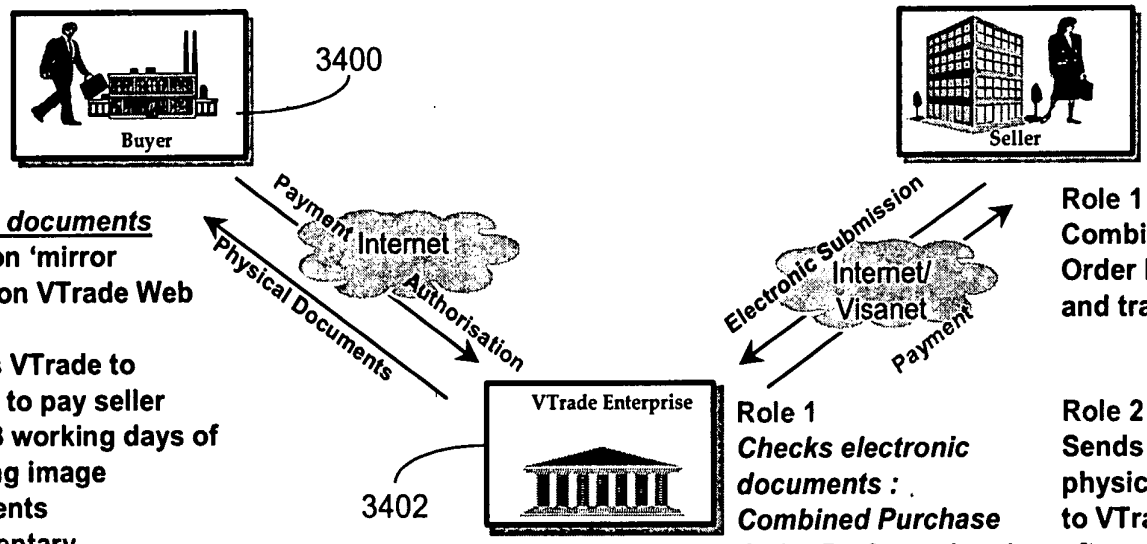

Buyer
Seller
Electronic Submission
Internet/
Visanet
Payment
3302
VTrade Enterprise
Physical
Documents
Payment
Authorisation
Bank
BANK
3300
Role 1
Submits Combined Purchase
Order Proforma Invoice
and commercial shipping
documents
Role 3
Route physical
documents to Bank
within 1 working day
of receipt
Role 2
Scans physical
documents into
VTrade Web
Role 1
Checks electronic
documents :
Combined Purchase
Order Proforma
Invoice and electronic
documents
Role 2
Sends other shipping and
physical documents
to VTrade to route to bank
after agreement reached on
Combined Purchase
Order Proforma Invoice with
buyer
Documentary
Checking Risk
Resides with bank
Role 1
Checks documents
based on 'mirror' image on VTrade Web
Role 2
Informs VTrade within 1 working day of checking
image documents to pay/not to pay seller after
checking (depending on clean/discrepant)

Figure 33



Role 1
- ***Checks documents*** based on 'mirror image' on VTrade Web
- Role 2
  Informs VTrade to pay/not to pay seller within 3 working days of checking image documents
- Documentary Checking Risk Resides with buyer

Role 1
Checks electronic documents : Combined Purchase Order Proforma Invoice and electronic documents

Role 2
Scans physical documents into VTrade Web

Role 3
Sends physical documents to buyer via courier within 1 working day of receipt

Role 1
Combined Purchase Order Proforma Invoice and transportation documents

Role 2
Sends other shipping and physical documents to VTrade to direct to buyer after agreement reached on Combined Purchase Order Proforma Invoice with buyer

Figure 34

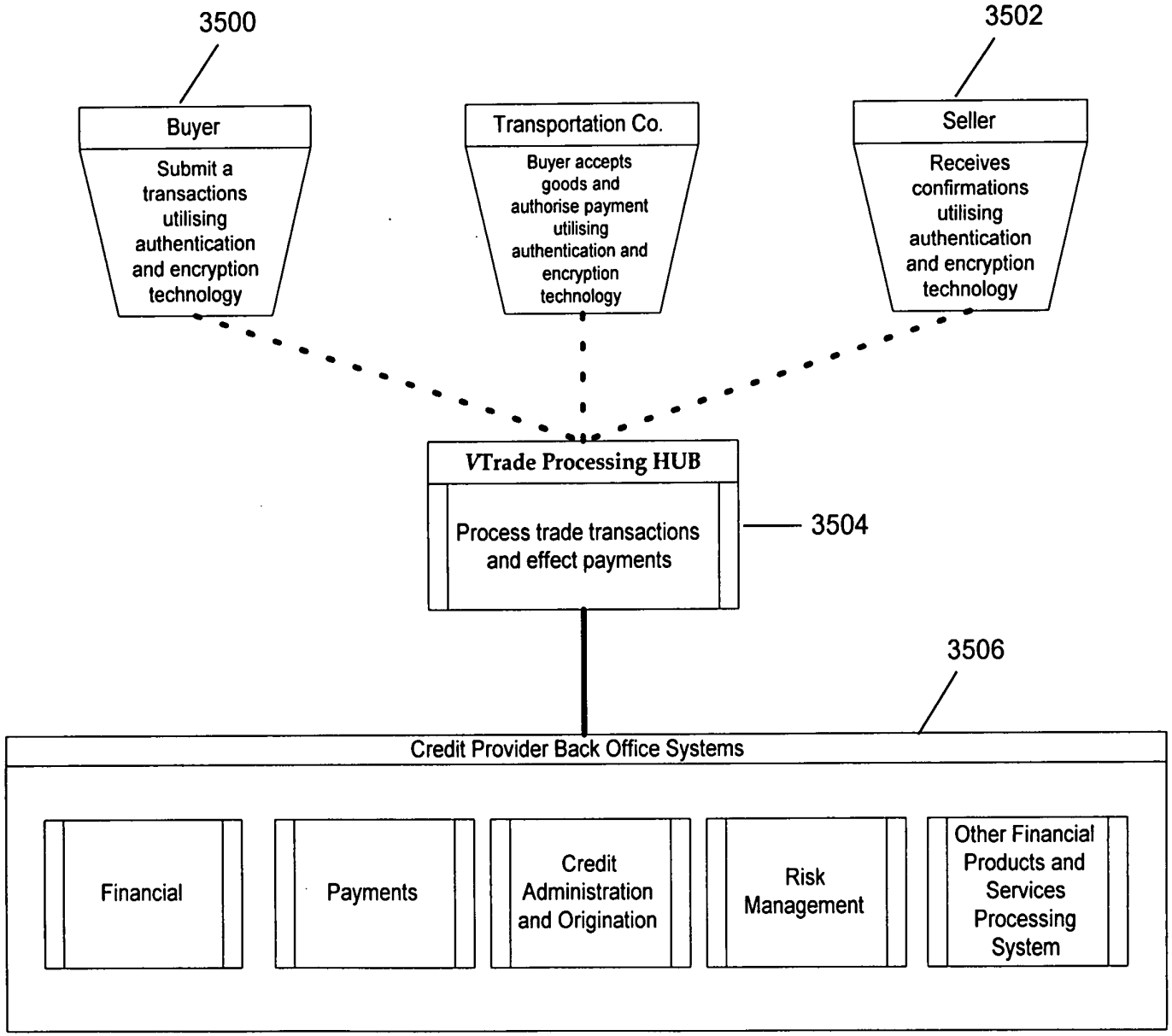

3500
3502
Buyer
Submit a transactions utilising authentication and encryption technology
Transportation Co.
Buyer accepts goods and authorise payment utilising authentication and encryption technology
Seller
Receives confirmations utilising authentication and encryption technology
VTrade Processing HUB
Process trade transactions and effect payments
3504
3506
Credit Provider Back Office Systems
Financial
Payments
Credit Administration and Origination
Risk Management
Other Financial Products and Services Processing System

Figure 35

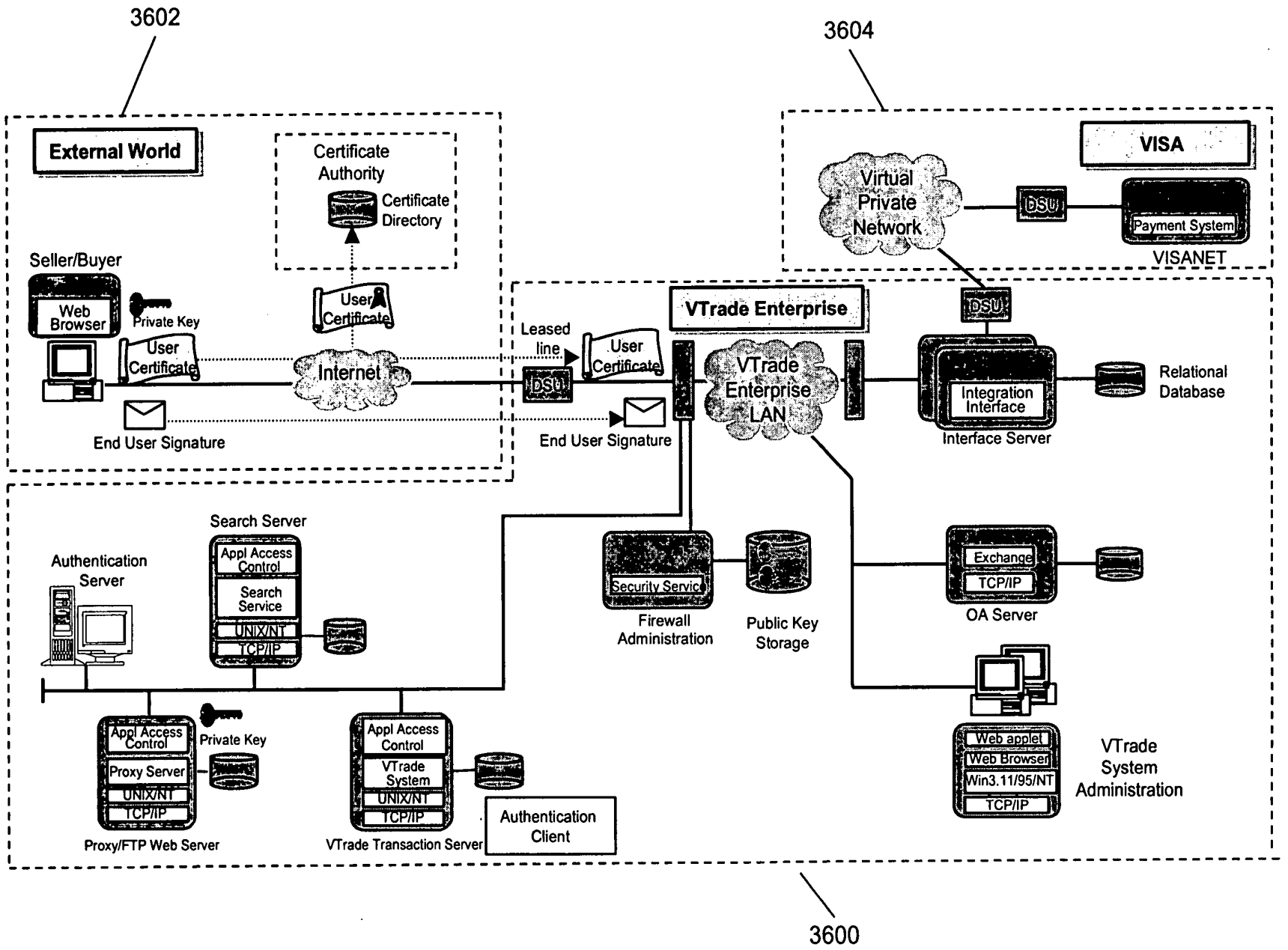

3602
3604
External World
Certificate Authority
Certificate Directory
VISA
Virtual Private Network
DSU
Payment System
VISANET
Seller/Buyer
Web Browser
Private Key
User Certificate
Internet
Leased line
VTrade Enterprise
VTrade Enterprise LAN
Integration Interface
Interface Server
Relational Database
End User Signature
Search Server
Appl Access Control
Search Service
UNIX/NT
TCP/IP
Authentication Server
Security Servic
Firewall Administration
Public Key Storage
Exchange
OA Server
Proxy Server
Proxy/FTP Web Server
VTrade System
VTrade Transaction Server
Authentication Client
Web applet
Web Browser
Win3.11/95/NT
VTrade System Administration
3600

Figure 36

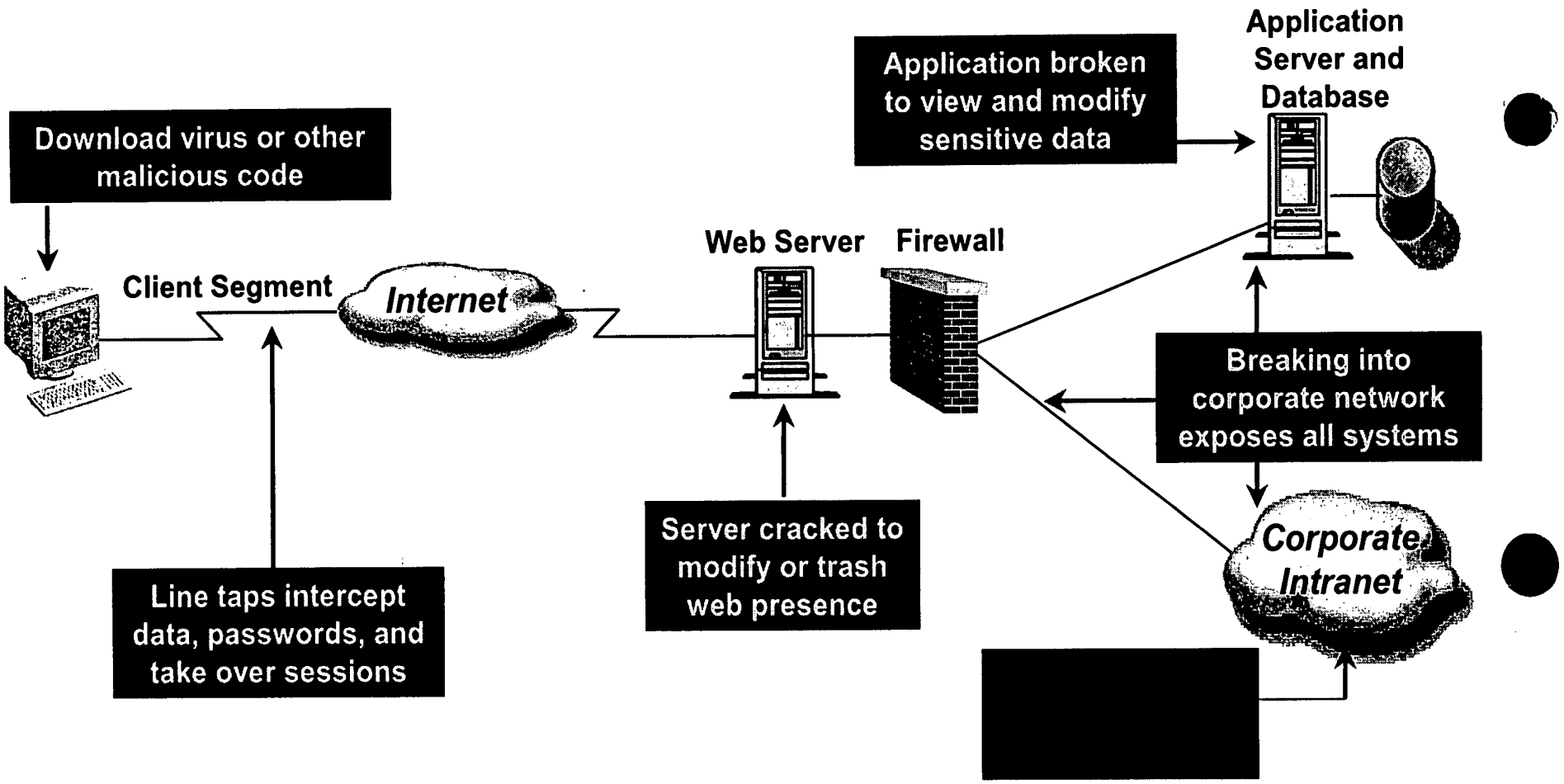

Application Server and Database
Application broken to view and modify sensitive data
Download virus or other malicious code
Web Server
Firewall
Client Segment
Internet
Breaking into corporate network exposes all systems
Corporate Intranet
Server cracked to modify or trash web presence
Line taps intercept data, passwords, and take over sessions

Figure 37

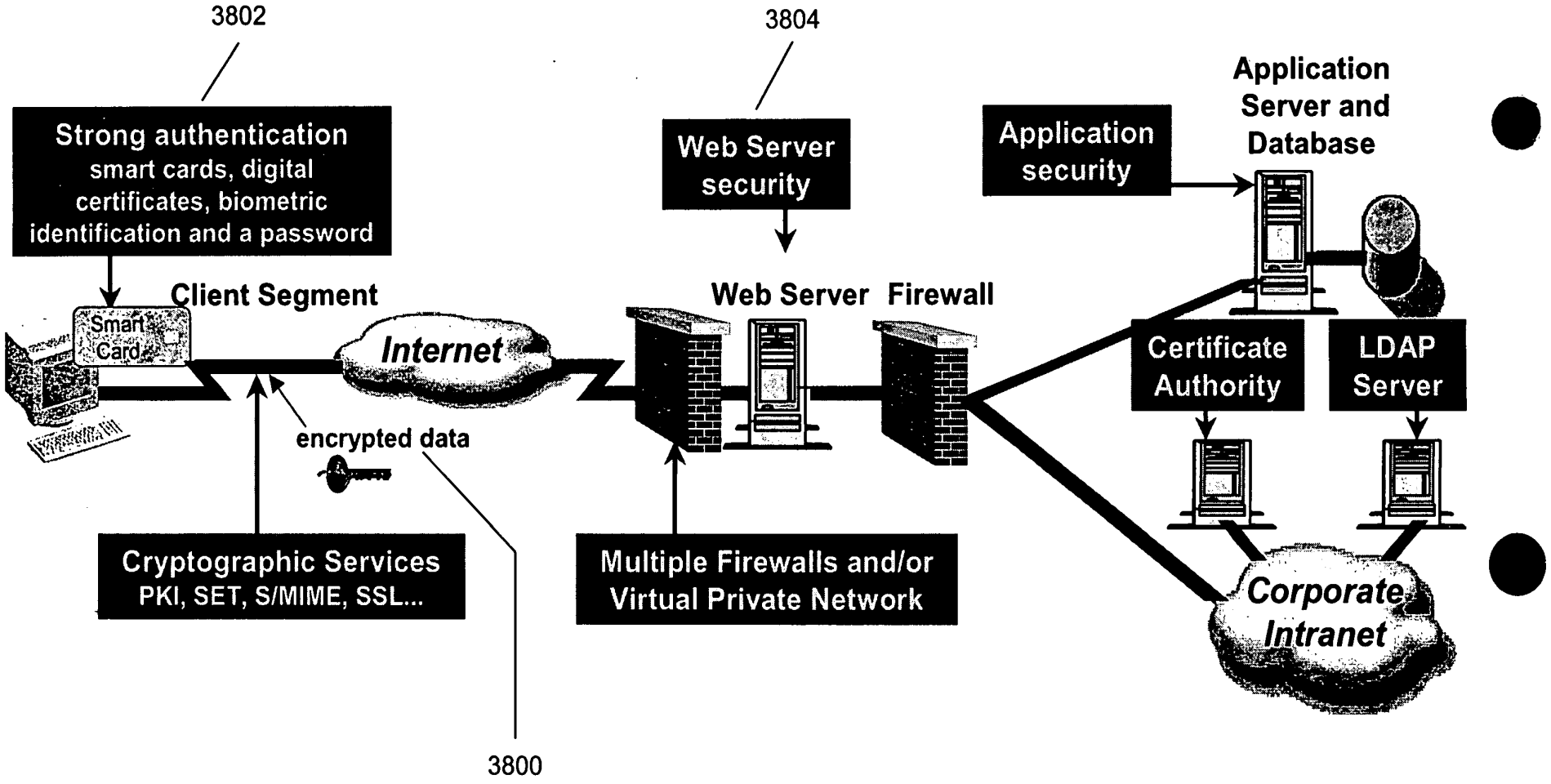

3802
Strong authentication
smart cards, digital certificates, biometric identification and a password
Client Segment
Smart Card
Internet
encrypted data
Cryptographic Services
PKI, SET, S/MIME, SSL...
3804
Web Server security
Web Server
Firewall
Multiple Firewalls and/or Virtual Private Network
Application security
Application Server and Database
Certificate Authority
LDAP Server
Corporate Intranet
3800

Figure 38

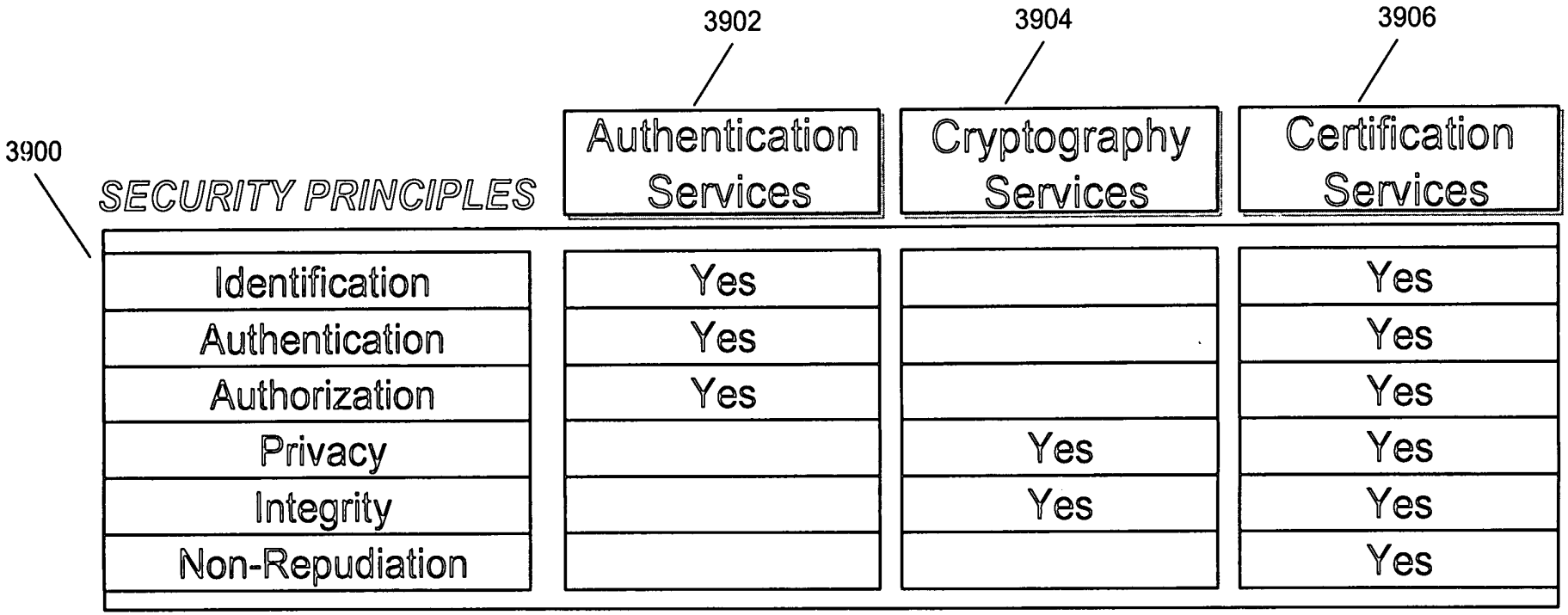

3900
SECURITY PRINCIPLES
3902
Authentication Services
3904
Cryptography Services
3906
Certification Services
Identification
Yes
Yes
Authentication
Yes
Yes
Authorization
Yes
Yes
Privacy
Yes
Yes
Integrity
Yes
Yes
Non-Repudiation
Yes

Figure 39

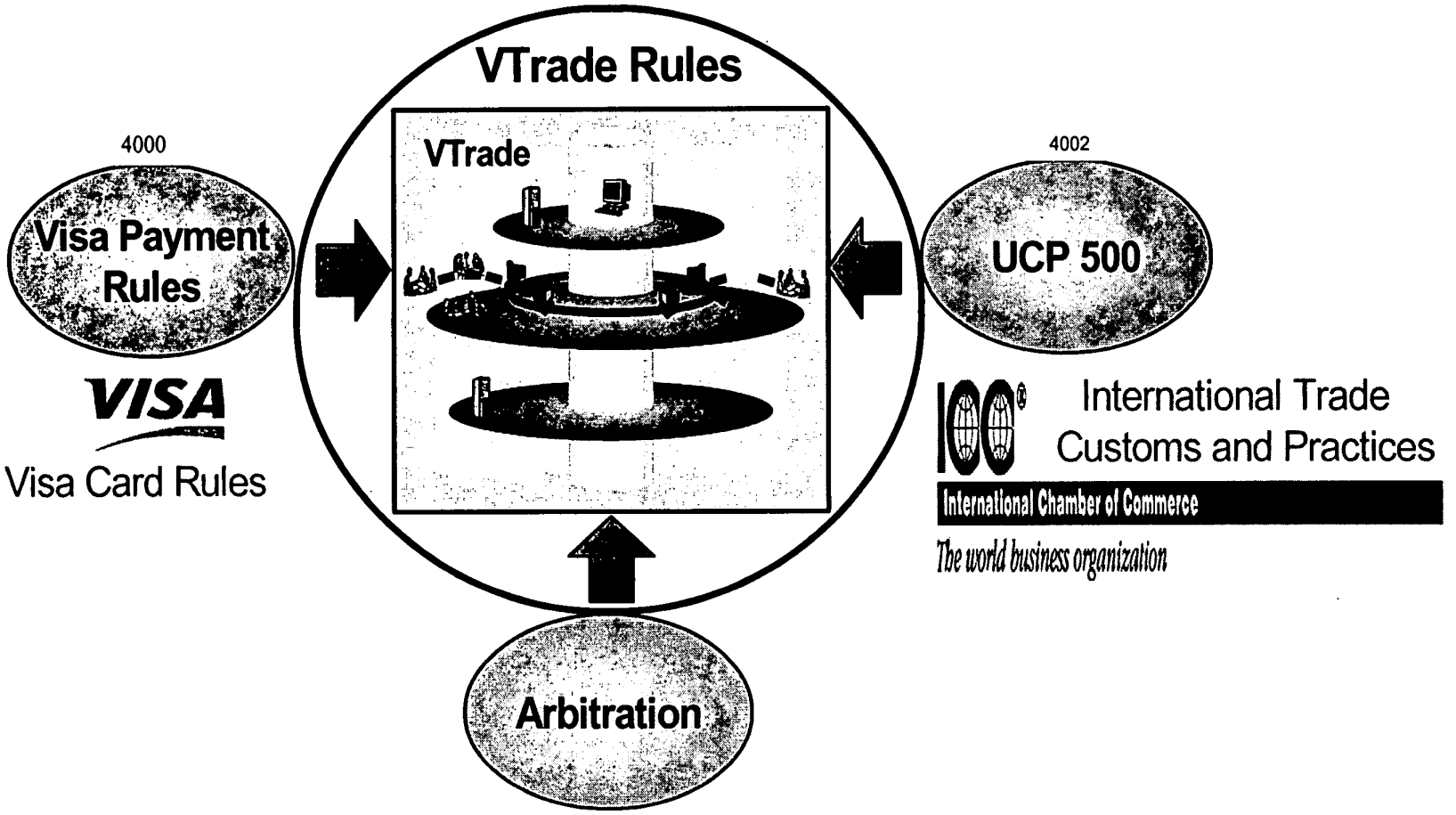

VTrade Rules
VTrade
4000
Visa Payment Rules
VISA
Visa Card Rules
4002
UCP 500
International Trade Customs and Practices
International Chamber of Commerce
The world business organization
Arbitration
ICC International Court for Arbitration

Figure 40

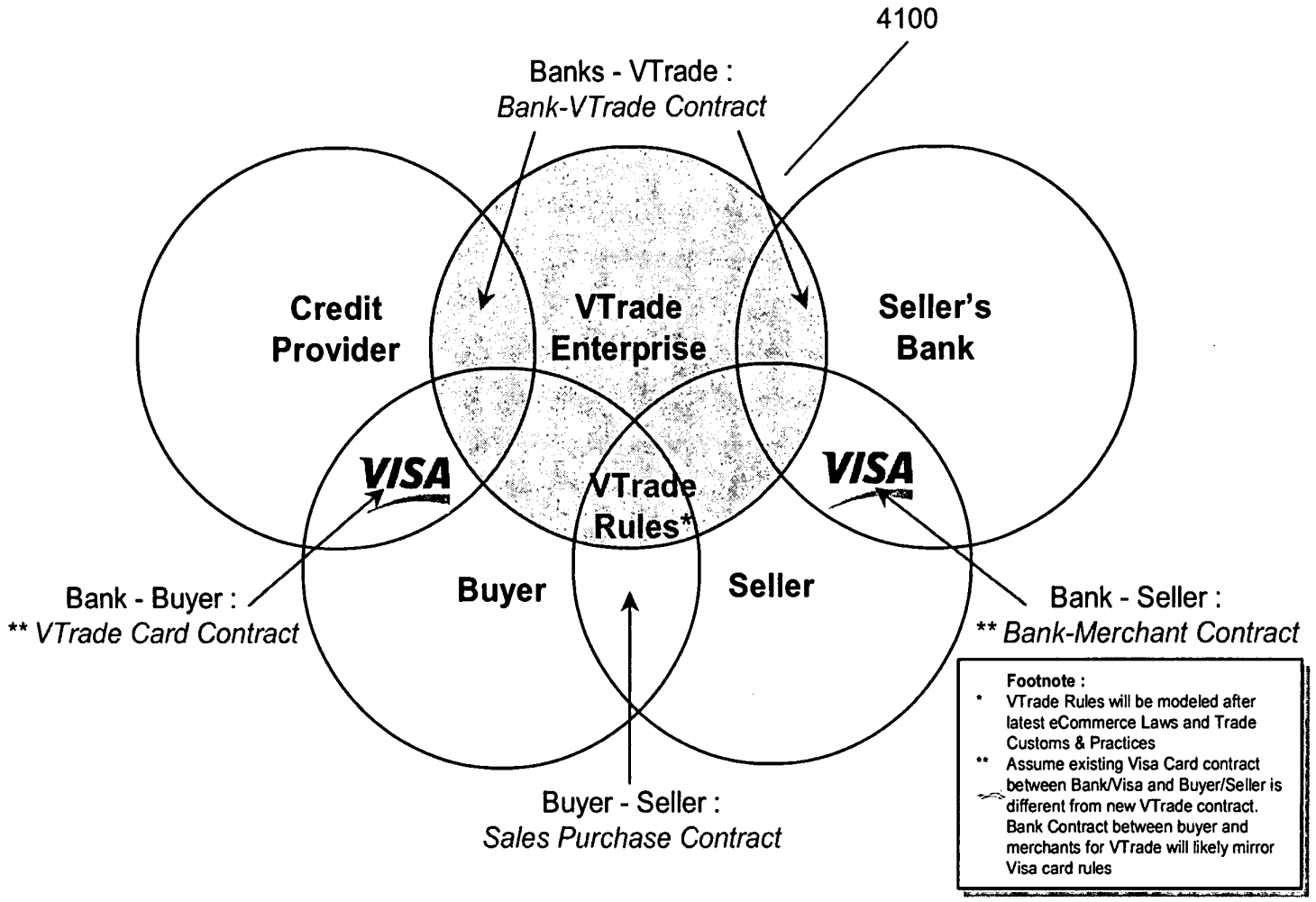

4100
Banks - VTrade :
Bank-VTrade Contract
Credit Provider
VTrade Enterprise
Seller's Bank
VISA
VTrade Rules*
VISA
Buyer
Seller
Bank - Buyer :
** VTrade Card Contract
Bank - Seller :
** Bank-Merchant Contract
Buyer - Seller :
Sales Purchase Contract
Footnote :
* VTrade Rules will be modeled after latest eCommerce Laws and Trade Customs & Practices
** Assume existing Visa Card contract between Bank/Visa and Buyer/Seller is different from new VTrade contract. Bank Contract between buyer and merchants for VTrade will likely mirror Visa card rules

Figure 41

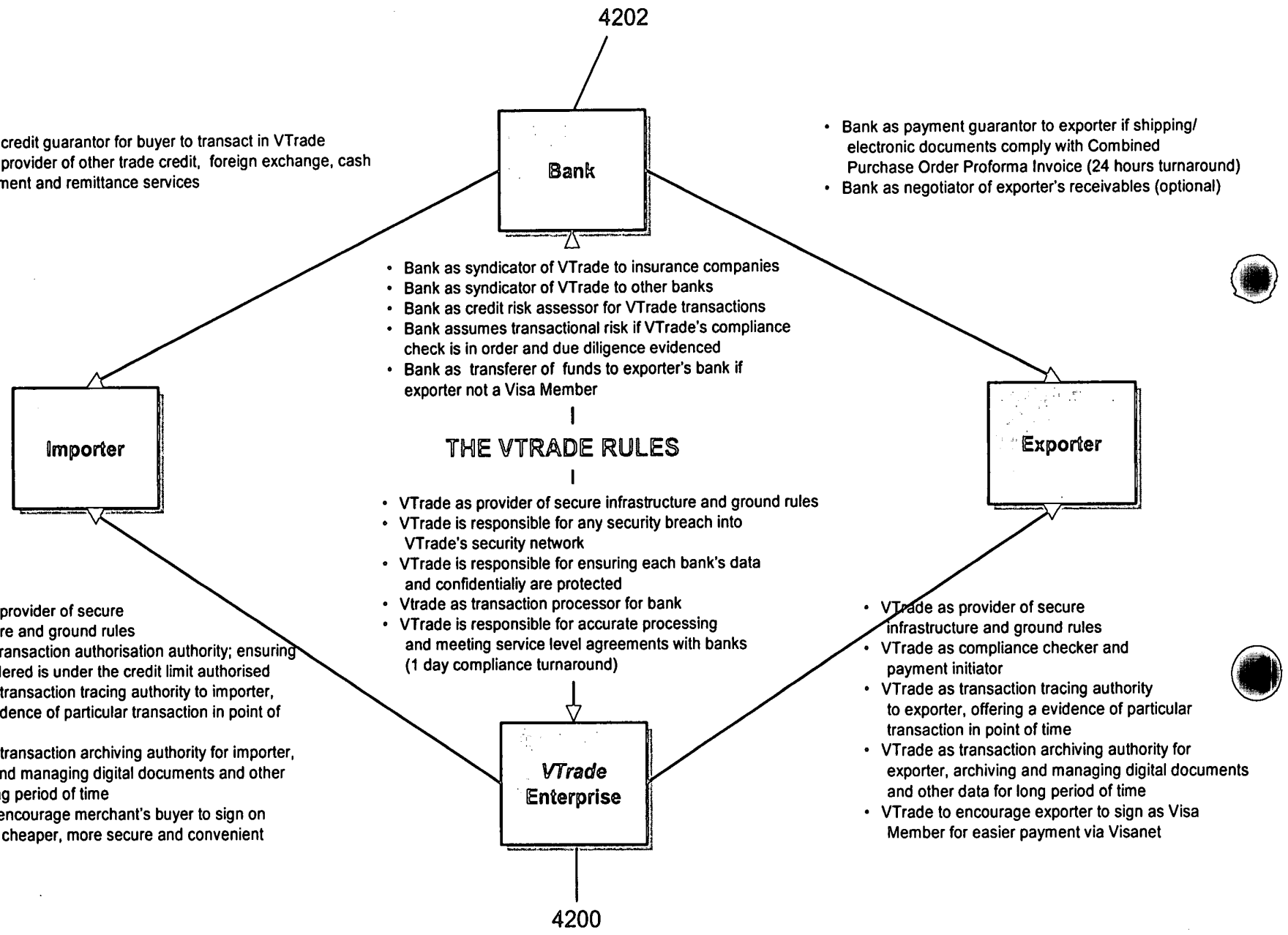

4202
Bank
• Bank as credit guarantor for buyer to transact in VTrade
• Bank as provider of other trade credit, foreign exchange, cash management and remittance services
• Bank as payment guarantor to exporter if shipping/ electronic documents comply with Combined Purchase Order Proforma Invoice (24 hours turnaround)
• Bank as negotiator of exporter's receivables (optional)
• Bank as syndicator of VTrade to insurance companies
• Bank as syndicator of VTrade to other banks
• Bank as credit risk assessor for VTrade transactions
• Bank assumes transactional risk if VTrade's compliance check is in order and due diligence evidenced
• Bank as transferer of funds to exporter's bank if exporter not a Visa Member
Importer
Exporter
THE VTRADE RULES
• VTrade as provider of secure infrastructure and ground rules
• VTrade is responsible for any security breach into VTrade's security network
• VTrade is responsible for ensuring each bank's data and confidentialiy are protected
• Vtrade as transaction processor for bank
• VTrade is responsible for accurate processing and meeting service level agreements with banks (1 day compliance turnaround)
• VTrade as provider of secure infrastructure and ground rules
• Vtrade as transaction authorisation authority; ensuring amount ordered is under the credit limit authorised
• VTrade as transaction tracing authority to importer, offering evidence of particular transaction in point of time
VTrade as transaction archiving authority for importer, archiving and managing digital documents and other data for long period of time
• VTrade to encourage merchant's buyer to sign on VTrade for cheaper, more secure and convenient transacting
• VTrade as provider of secure infrastructure and ground rules
• VTrade as compliance checker and payment initiator
• VTrade as transaction tracing authority to exporter, offering a evidence of particular transaction in point of time
• VTrade as transaction archiving authority for exporter, archiving and managing digital documents and other data for long period of time
• VTrade to encourage exporter to sign as Visa Member for easier payment via Visanet
VTrade Enterprise
4200

Figure 42

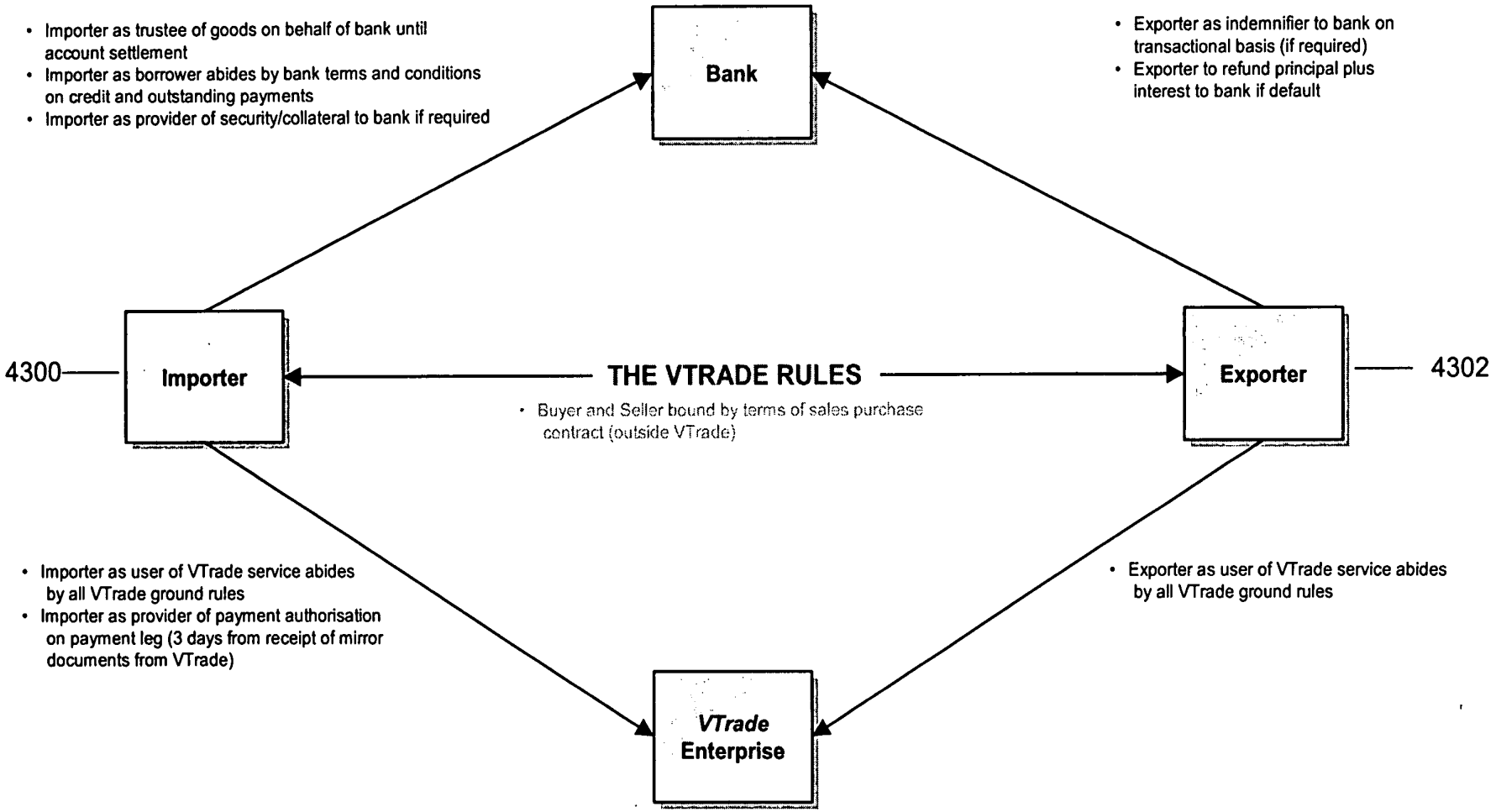

• Importer as trustee of goods on behalf of bank until account settlement
• Importer as borrower abides by bank terms and conditions on credit and outstanding payments
• Importer as provider of security/collateral to bank if required
Bank
• Exporter as indemnifier to bank on transactional basis (if required)
• Exporter to refund principal plus interest to bank if default
4300
Importer
THE VTRADE RULES
• Buyer and Seller bound by terms of sales purchase contract (outside VTrade)
Exporter
4302
• Importer as user of VTrade service abides by all VTrade ground rules
• Importer as provider of payment authorisation on payment leg (3 days from receipt of mirror documents from VTrade)
VTrade Enterprise
• Exporter as user of VTrade service abides by all VTrade ground rules

Figure 43

Figure 44

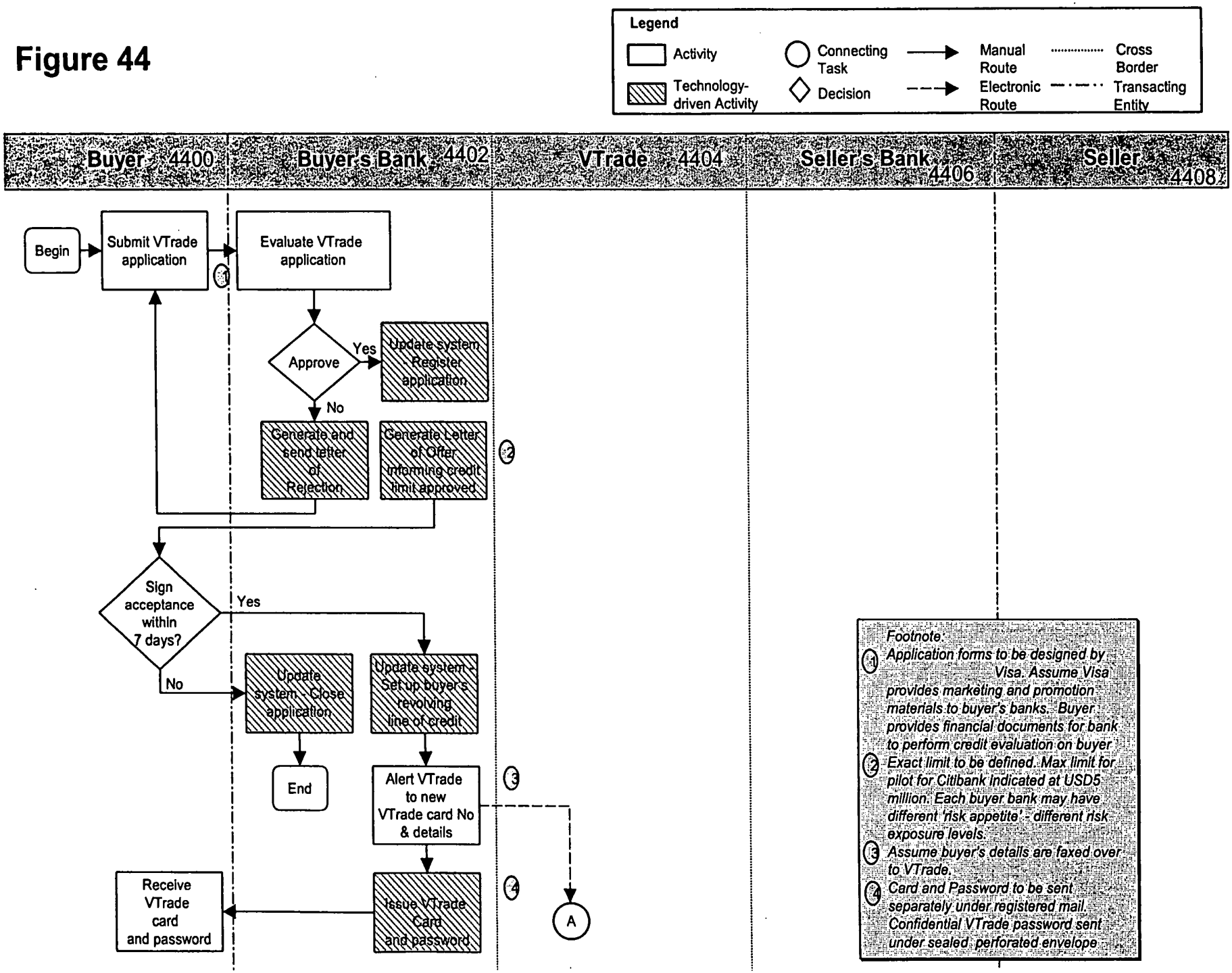

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer - 4400
Buyer's Bank - 4402
VTrade - 4404
Seller's Bank - 4406
Seller - 4408
Begin
Submit VTrade application
Evaluate VTrade application
Approve
Yes
No
Update system - Register application
Generate and send letter of Rejection
Generate Letter of Offer informing credit limit approved
Sign acceptance within 7 days?
Yes
No
Update system - Close application
Update system - Set up buyer's revolving line of credit
End
Alert VTrade to new VTrade card No & details
Issue VTrade Card and password
Receive VTrade card and password
A
Footnote:
1 Application forms to be designed by Visa. Assume Visa provides marketing and promotion materials to buyer's banks. Buyer provides financial documents for bank to perform credit evaluation on buyer
2 Exact limit to be defined. Max limit for pilot for Citibank indicated at USD5 million. Each buyer bank may have different 'risk appetite' - different risk exposure levels.
3 Assume buyer's details are faxed over to VTrade.
4 Card and Password to be sent separately under registered mail. Confidential VTrade password sent under sealed perforated envelope

Figure 45

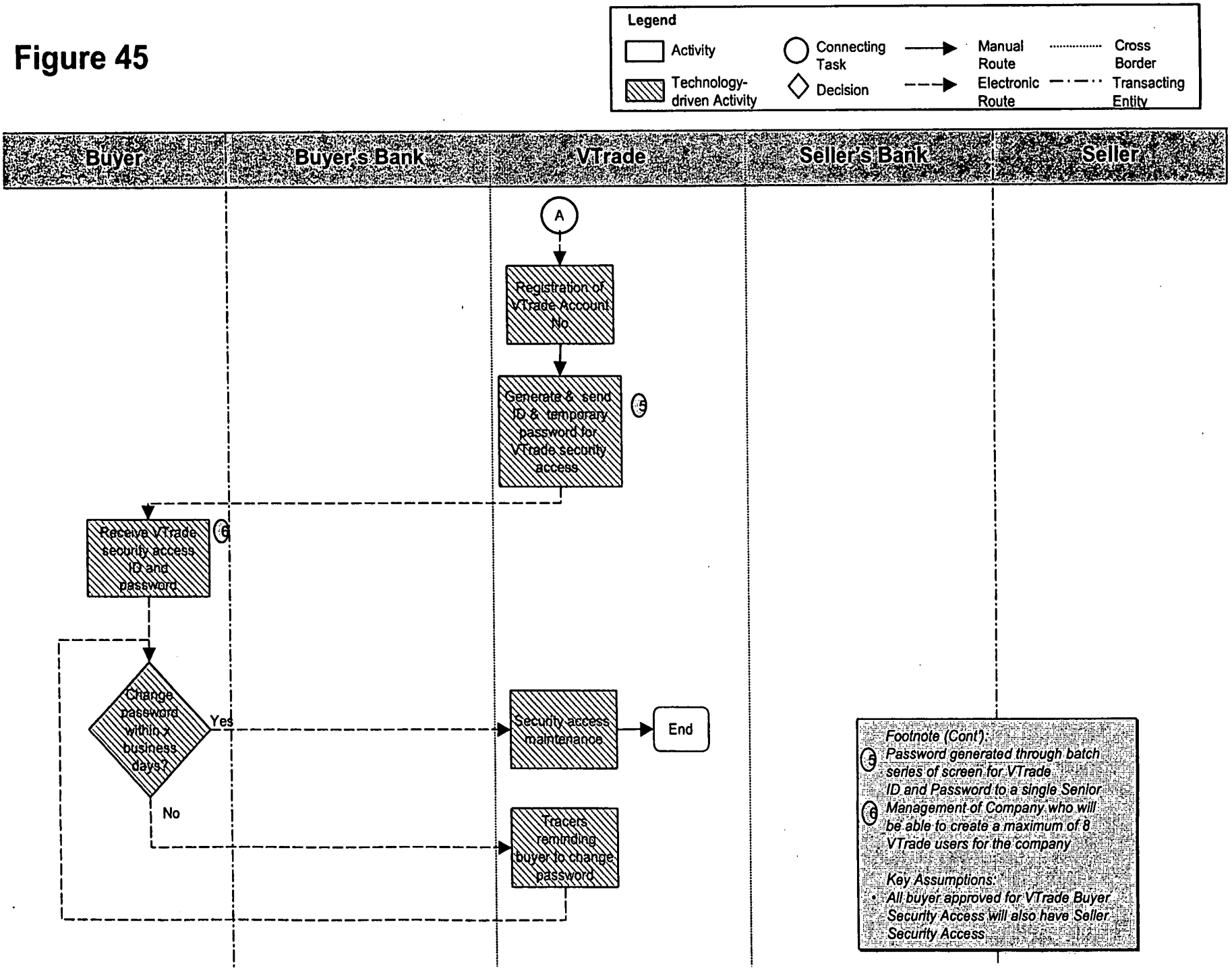

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
A
Registration of VTrade Account No
Generate & send ID & temporary password for VTrade security access
5
Receive VTrade security access ID and password
6
Change password within 7 business days?
Yes
No
Security access maintenance
End
Tracers reminding buyer to change password
Footnote (Cont'):
5 Password generated through batch series of screen for VTrade ID and Password to a single Senior Management of Company who will be able to create a maximum of 8 VTrade users for the company
6 Key Assumptions:
• All buyer approved for VTrade Buyer Security Access will also have Seller Security Access

Figure 46

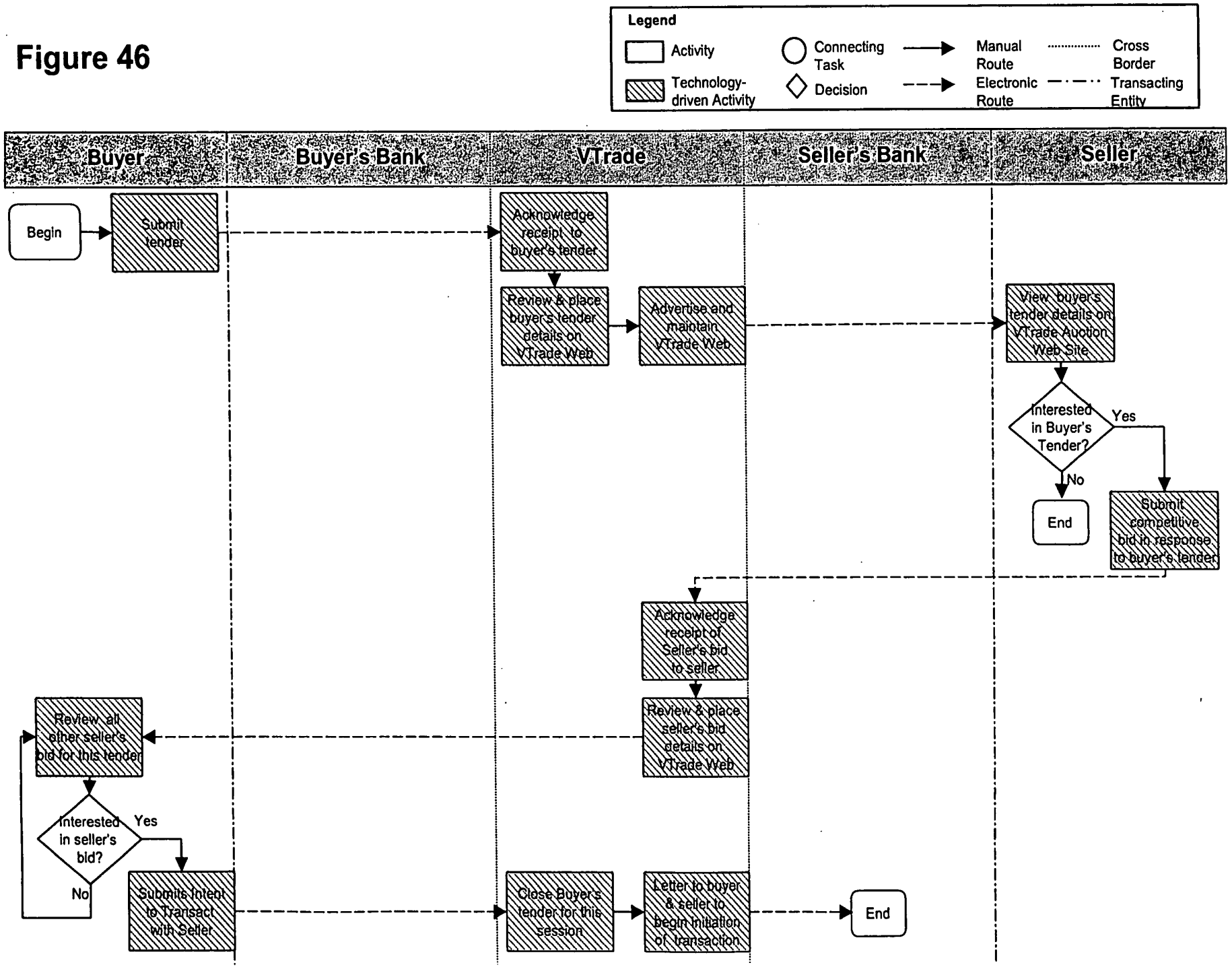

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
Begin
Submit tender
Acknowledge receipt to buyer's tender
Review & place buyer's tender details on VTrade Web
Advertise and maintain VTrade Web
View buyer's tender details on VTrade Auction Web Site
Interested in Buyer's Tender?
Yes
No
End
Submit competitive bid in response to buyer's tender
Acknowledge receipt of Seller's bid to seller
Review & place seller's bid details on VTrade Web
Review all other seller's bid for this tender
Interested in seller's bid?
Yes
No
Submits Intent to Transact with Seller
Close Buyer's tender for this session
Letter to buyer & seller to begin initiation of transaction
End

Figure 47

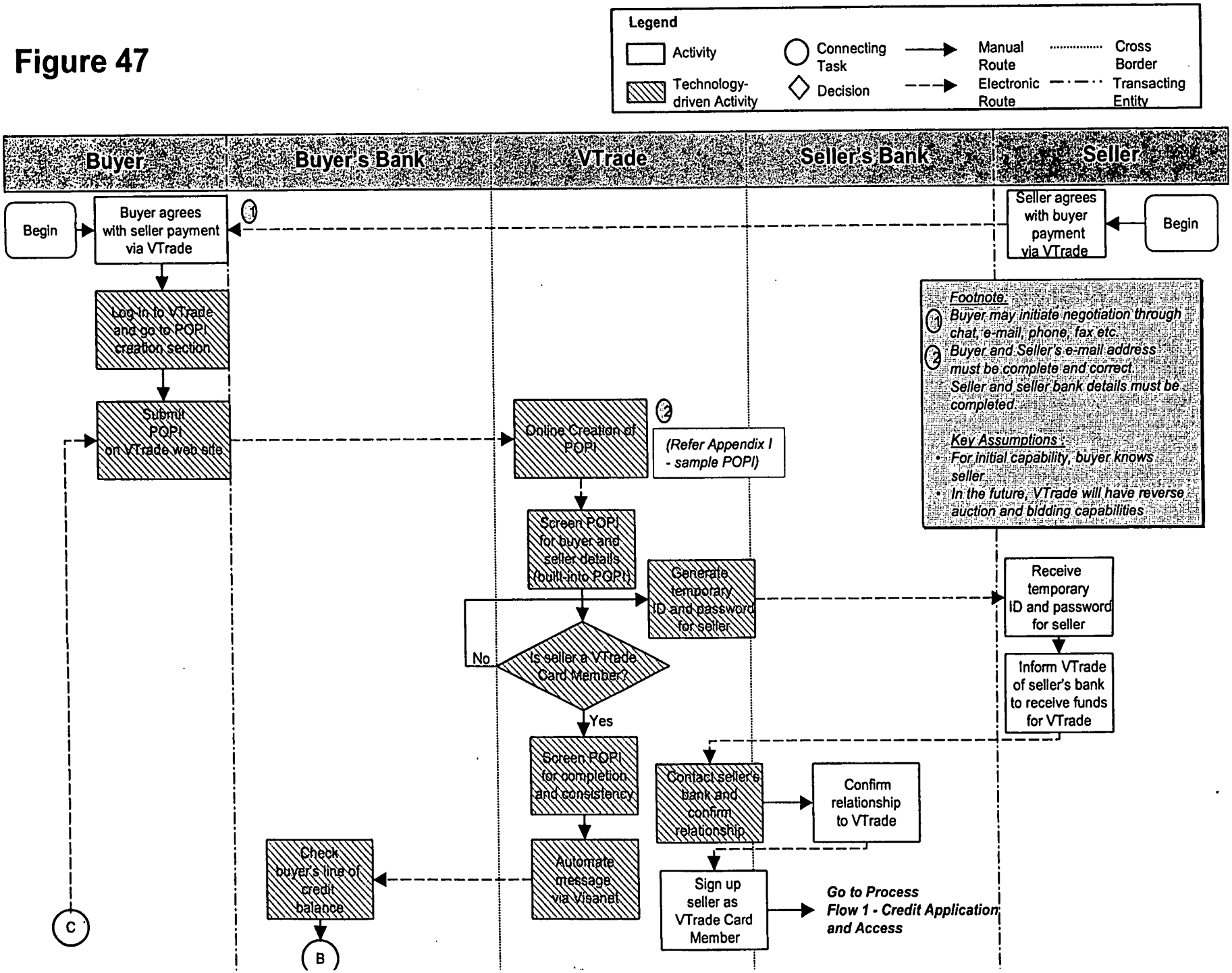

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
Begin
Buyer agrees with seller payment via VTrade
Log-in to VTrade and go to POPI creation section
Submit POPI on VTrade web site
Online Creation of POPI
(Refer Appendix I - sample POPI)
Screen POPI for buyer and seller details (built-into POPI)
Generate temporary ID and password for seller
No
Is seller a VTrade Card Member?
Yes
Screen POPI for completion and consistency
Automate message via Visanet
Check buyer's line of credit balance
C
B
Contact seller's bank and confirm relationship
Confirm relationship to VTrade
Sign up seller as VTrade Card Member
Go to Process Flow 1 - Credit Application and Access
Seller agrees with buyer payment via VTrade
Begin
Footnote:
1 Buyer may initiate negotiation through chat, e-mail, phone, fax etc.
2 Buyer and Seller's e-mail address must be complete and correct. Seller and seller bank details must be completed.
Key Assumptions :
• For initial capability, buyer knows seller
• In the future, VTrade will have reverse auction and bidding capabilities
Receive temporary ID and password for seller
Inform VTrade of seller's bank to receive funds for VTrade

Figure 48

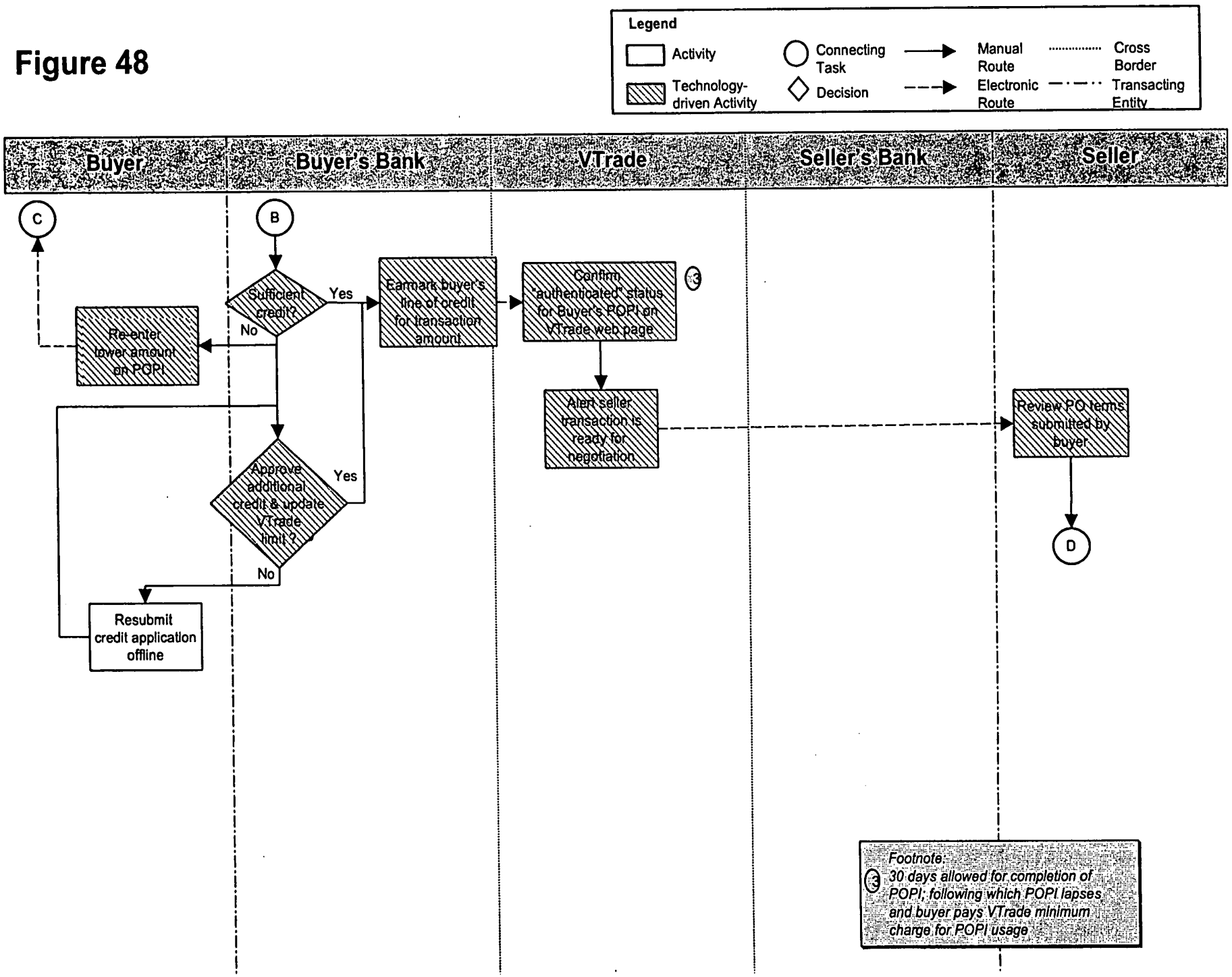

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
C
B
Sufficient credit?
Yes
No
Re-enter lower amount on POPI
Earmark buyer's line of credit for transaction amount
Confirm "authenticated" status for Buyer's POPI on VTrade web page
Alert seller transaction is ready for negotiation
Review PO terms submitted by buyer
D
Approve additional credit & update VTrade limit ?
Yes
No
Resubmit credit application offline
Footnote:
30 days allowed for completion of POPI; following which POPI lapses and buyer pays VTrade minimum charge for POPI usage

Figure 49

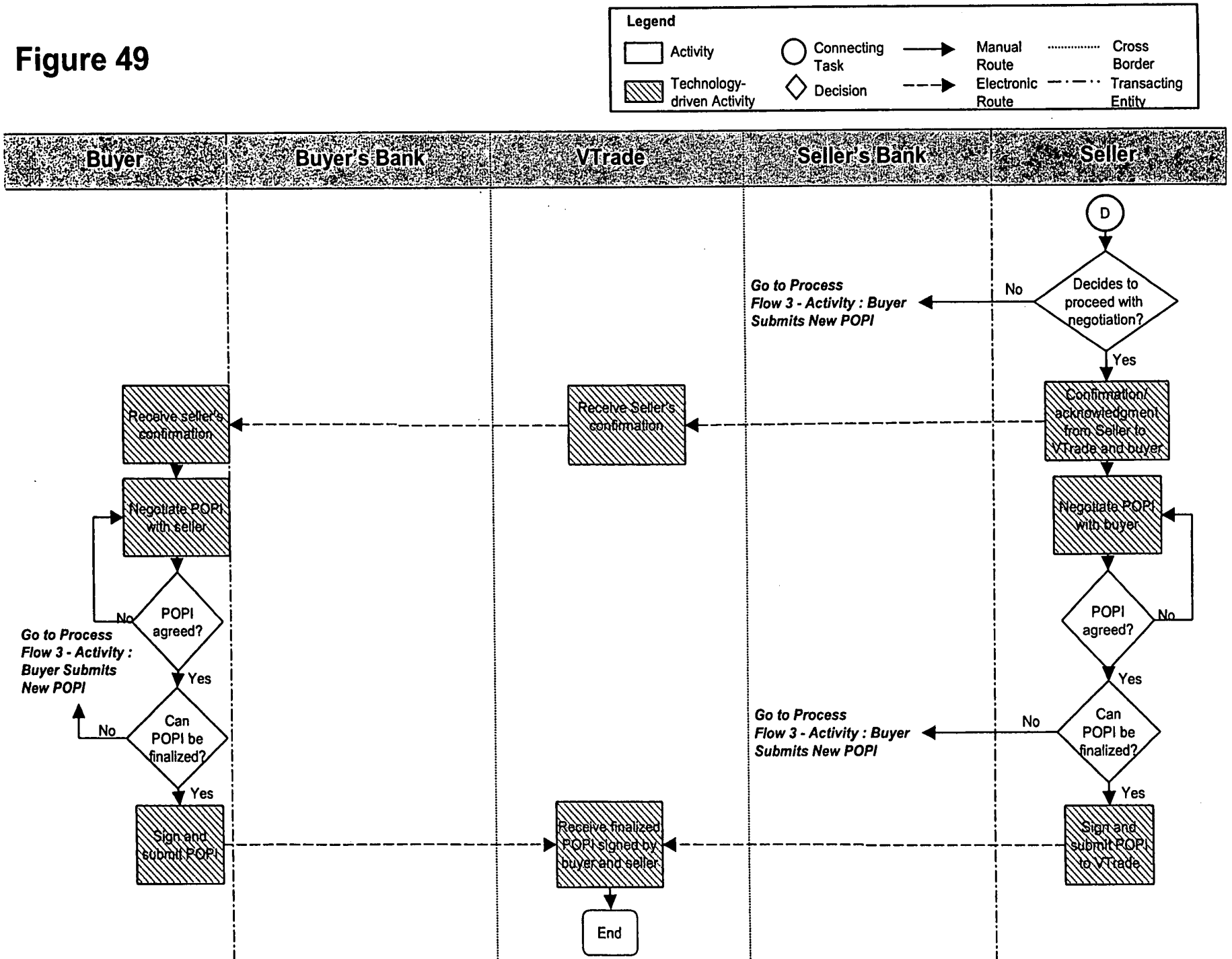

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
D
Decides to proceed with negotiation?
No
Go to Process Flow 3 - Activity : Buyer Submits New POPI
Yes
Confirmation/ acknowledgment from Seller to VTrade and buyer
Receive Seller's confirmation
Receive seller's confirmation
Negotiate POPI with buyer
Negotiate POPI with seller
POPI agreed?
No
Yes
Go to Process Flow 3 - Activity : Buyer Submits New POPI
Can POPI be finalized?
No
Yes
Go to Process Flow 3 - Activity : Buyer Submits New POPI
Sign and submit POPI to VTrade
Receive finalized POPI signed by buyer and seller
Sign and submit POPI
End

Figure 50

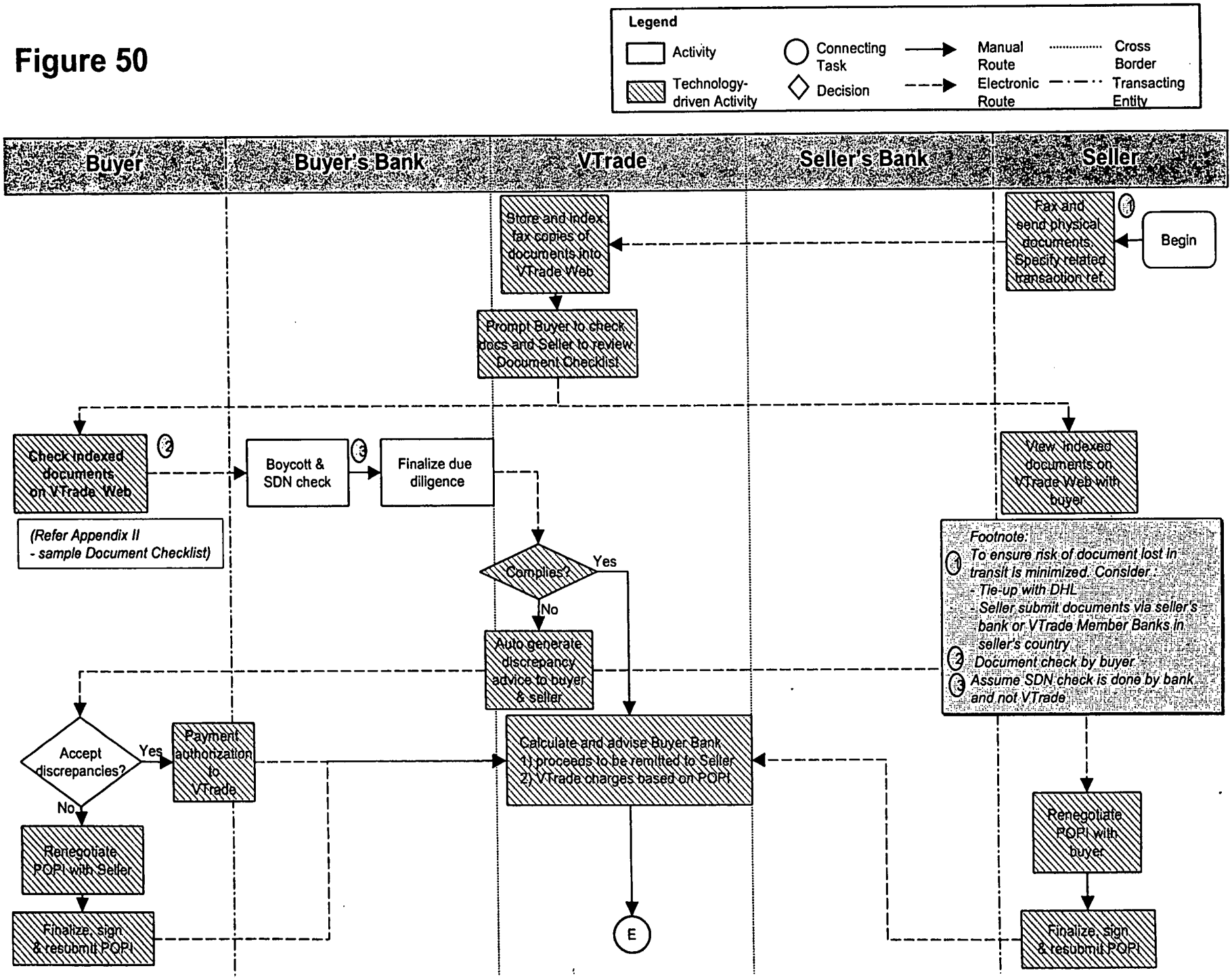

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
Begin
Fax and send physical documents. Specify related transaction ref.
Store and index fax copies of documents into VTrade Web
Prompt Buyer to check docs and Seller to review Document Checklist
Check indexed documents on VTrade Web
(Refer Appendix II - sample Document Checklist)
Boycott & SDN check
Finalize due diligence
Complies?
Yes
No
Auto generate discrepancy advice to buyer & seller
View indexed documents on VTrade Web with buyer
Footnote:
1 To ensure risk of document lost in transit is minimized. Consider :
- Tie-up with DHL
- Seller submit documents via seller's bank or VTrade Member Banks in seller's country
2 Document check by buyer
3 Assume SDN check is done by bank and not VTrade
Accept discrepancies?
Yes
No
Payment authorization to VTrade
Calculate and advise Buyer Bank
1) proceeds to be remitted to Seller
2) VTrade charges based on POPI
Renegotiate POPI with Seller
Finalize, sign & resubmit POPI
Renegotiate POPI with buyer
Finalize, sign & resubmit POPI
E

Figure 51

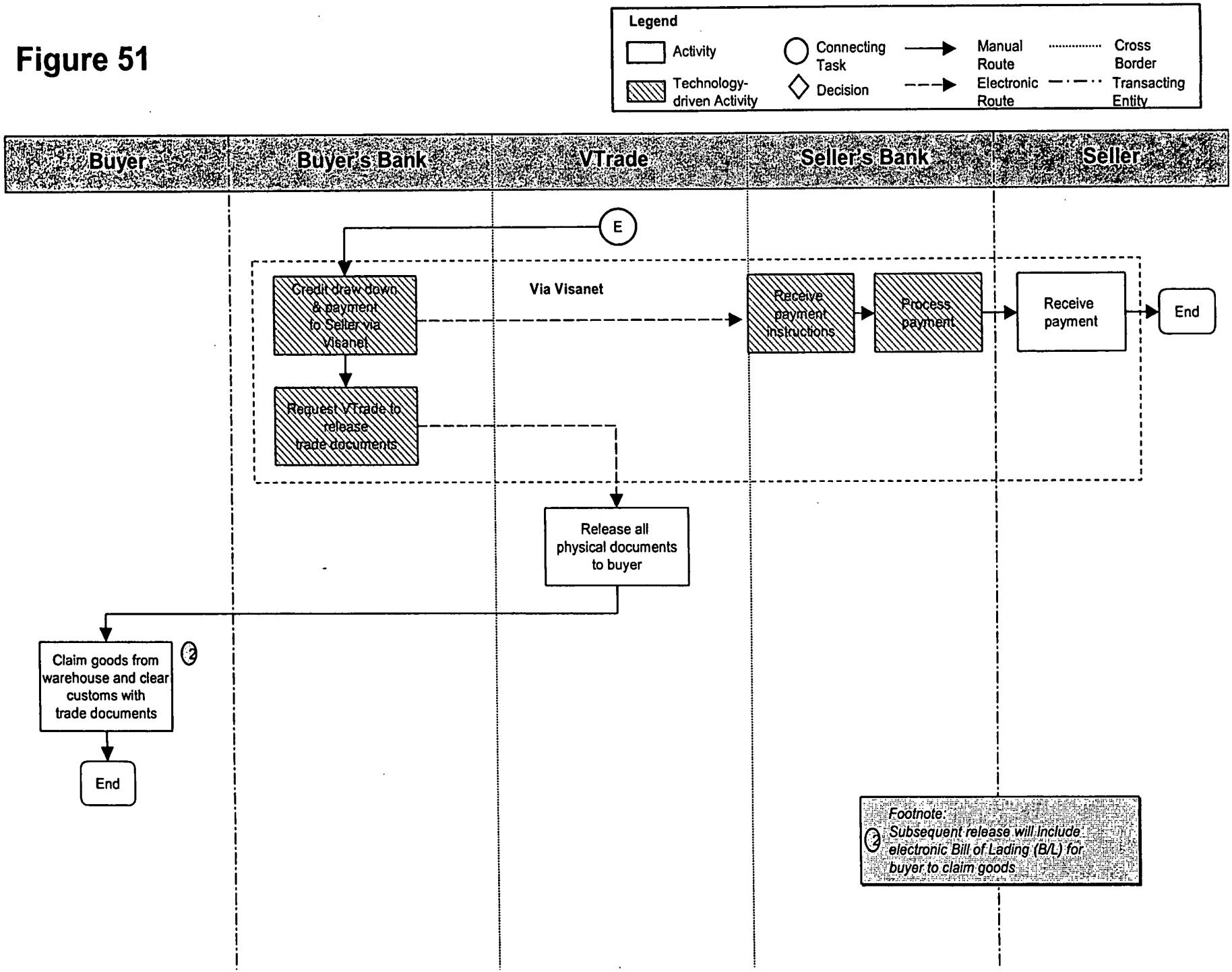
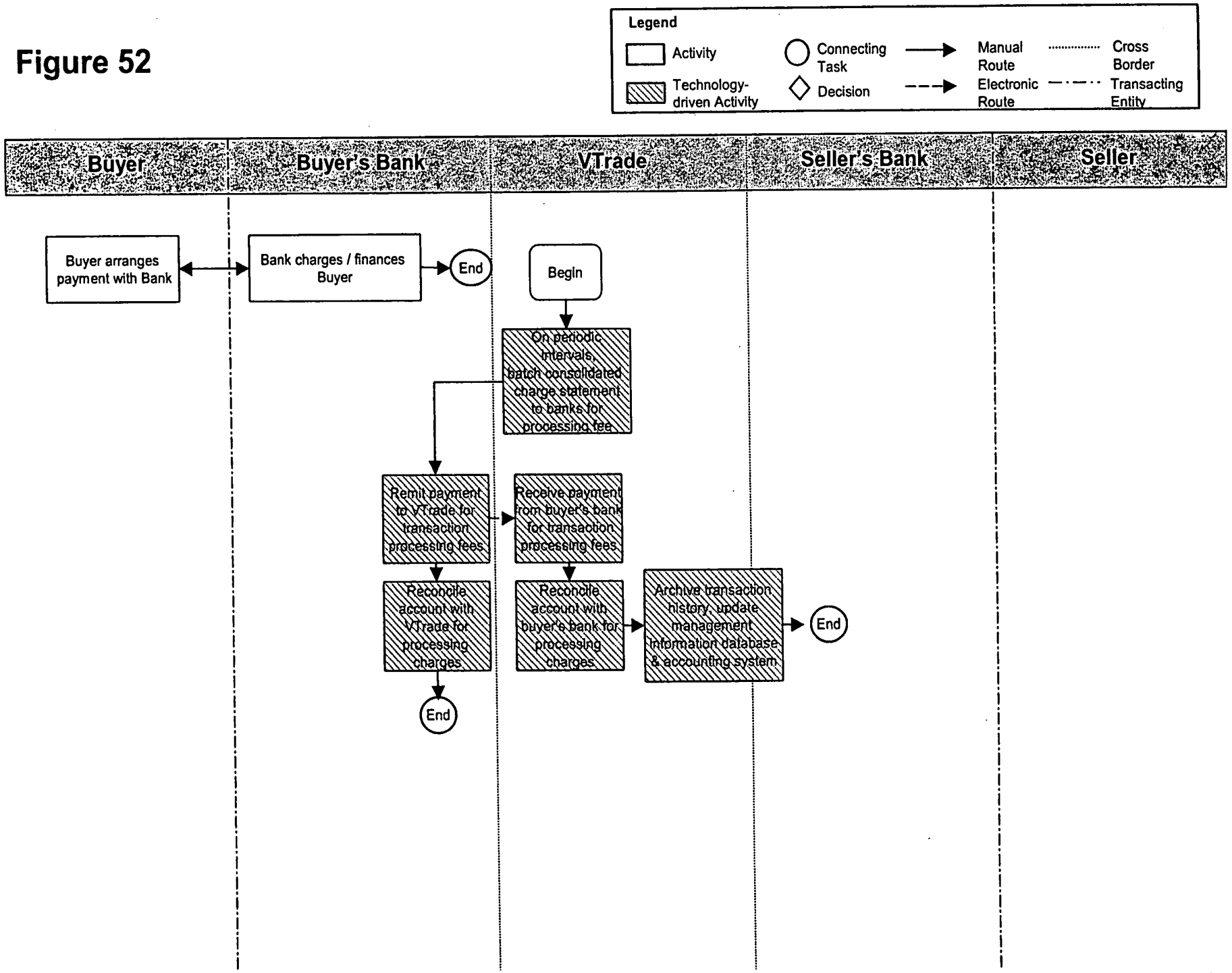

Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
E
Credit draw down & payment to Seller via Visanet
Via Visanet
Request vTrade to release trade documents
Receive payment instructions
Process payment
Receive payment
End
Release all physical documents to buyer
Claim goods from warehouse and clear customs with trade documents
End
Footnote:
Subsequent release will include electronic Bill of Lading (B/L) for buyer to claim goods

Figure 52


Legend
Activity
Technology-driven Activity
Connecting Task
Decision
Manual Route
Electronic Route
Cross Border
Transacting Entity
Buyer
Buyer's Bank
VTrade
Seller's Bank
Seller
Buyer arranges payment with Bank
Bank charges / finances Buyer
End
Begin
On periodic intervals, batch consolidated charge statement to banks for processing fee
Remit payment to VTrade for transaction processing fees
Receive payment from buyer's bank for transaction processing fees
Reconcile account with VTrade for processing charges
Reconcile account with buyer's bank for processing charges
Archive transaction history, update management information database & accounting system
End
End

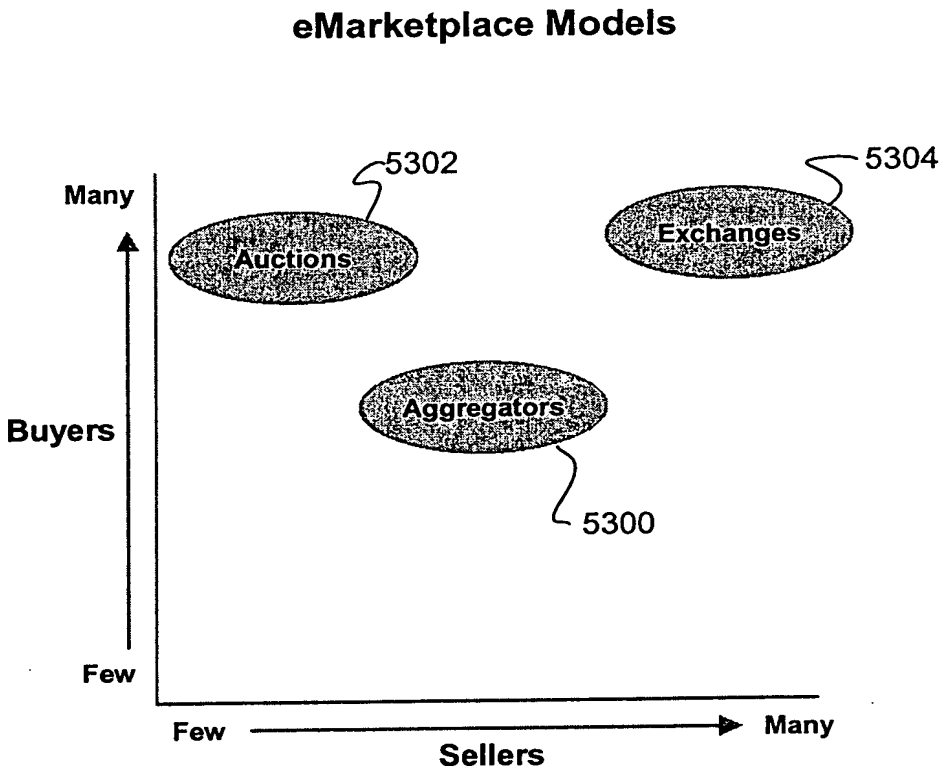

eMarketplace Models
Many
Buyers
Few
5302
Auctions
5304
Exchanges
Aggregators
5300
Few
Many
Sellers

Figure 53

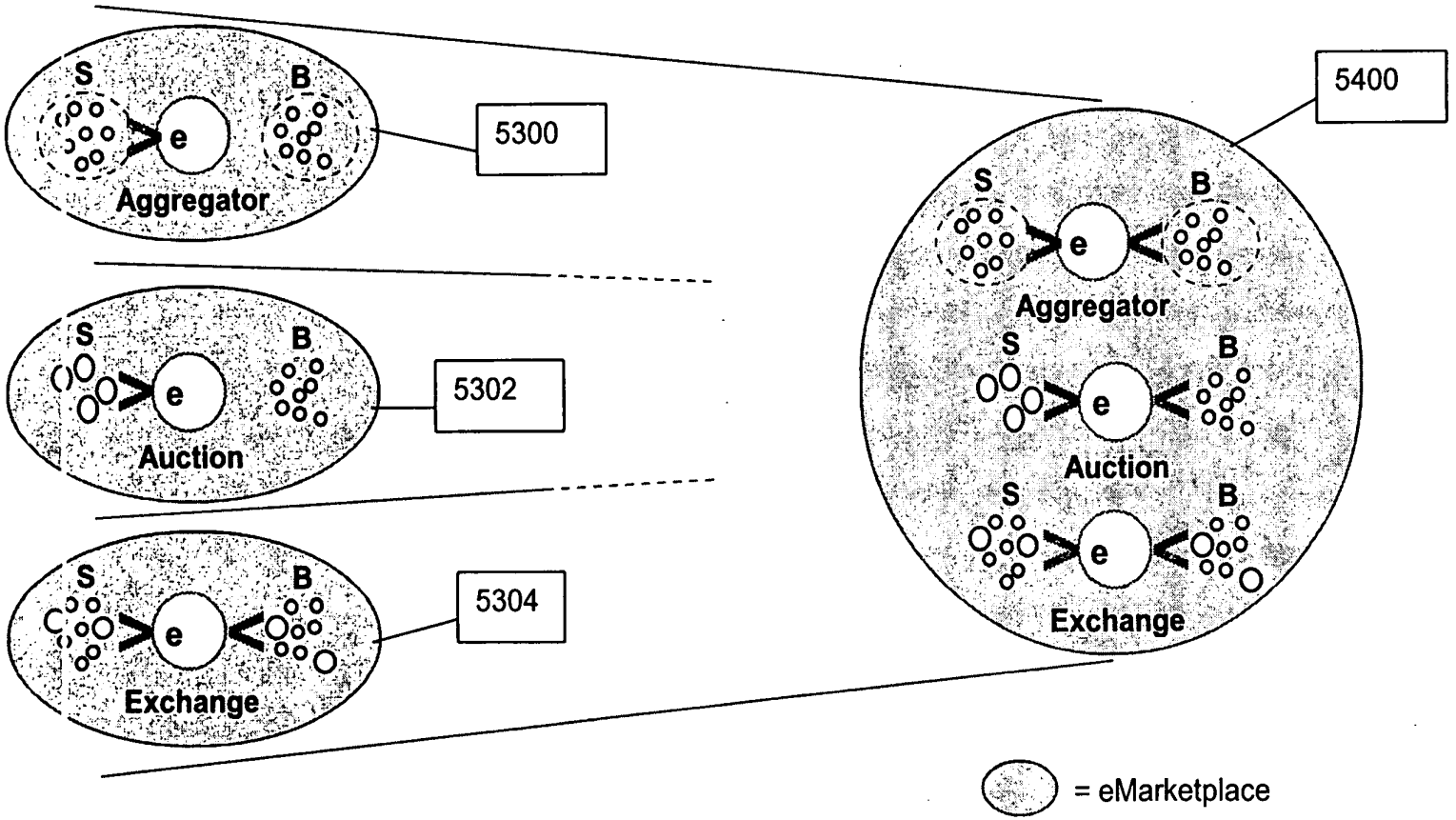

S
B
e
Aggregator
5300
Auction
5302
Exchange
5304
5400
= eMarketplace

Figure 54

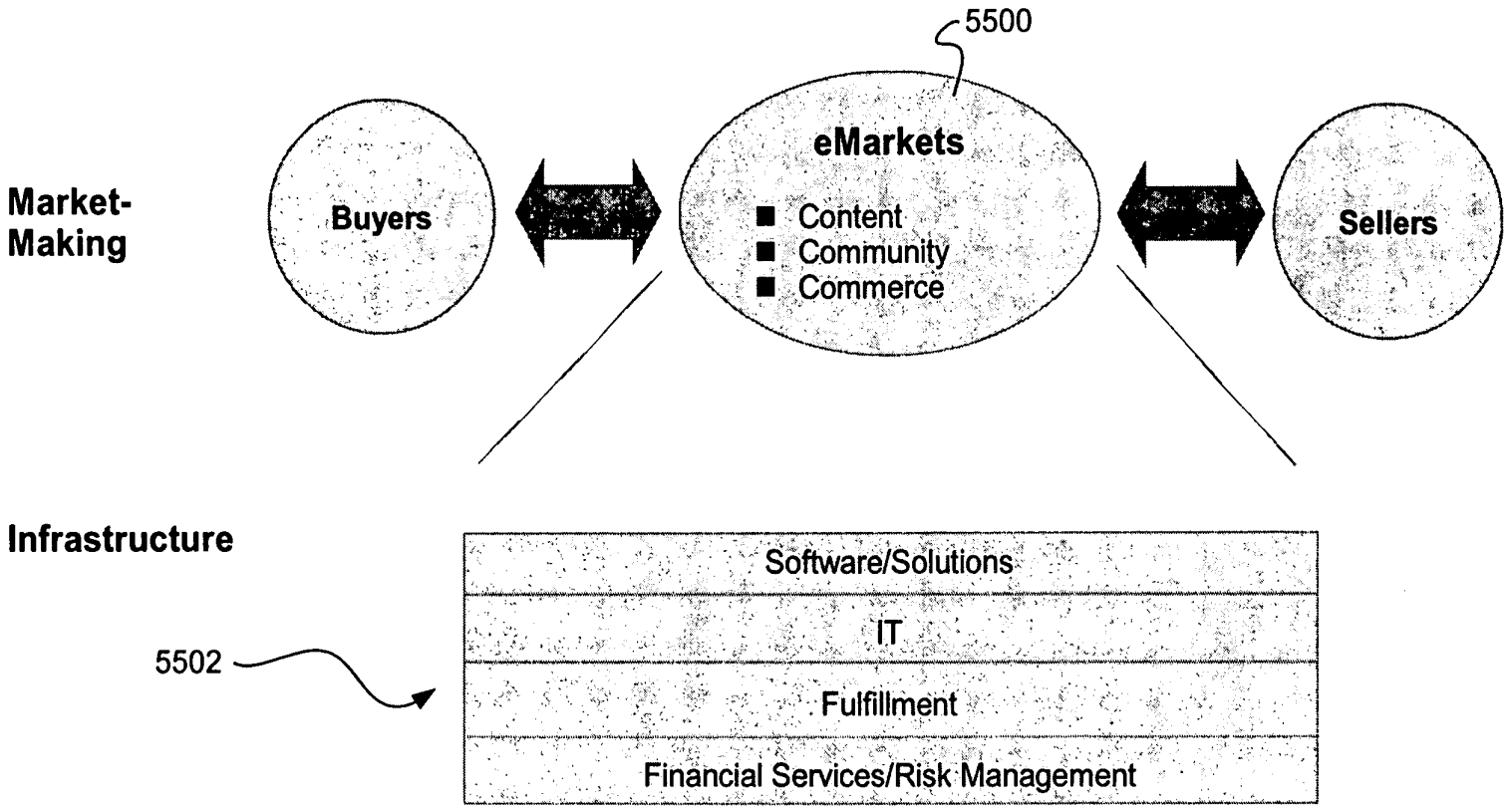

5500
Market-Making
Buyers
eMarkets
Content
Community
Commerce
Sellers
Infrastructure
5502
Software/Solutions
IT
Fulfillment
Financial Services/Risk Management

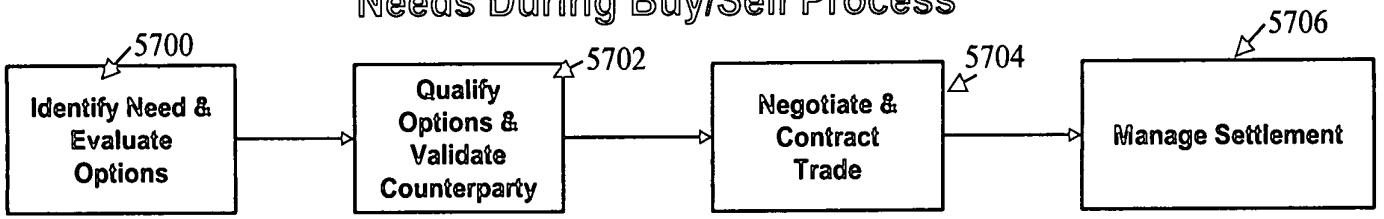
Figure 55

Infrastructure

		Description	Examples
5600	Software/ Solutions	☐ The software which makes the site run	☐ Auction engine ☐ Content management ☐ ERP integration software
5602	IT	☐ Setting up the site and providing ongoing maintenance	☐ Systems integration ☐ Hosting ☐ Application Service Providers
5604	Fulfillment	☐ Organizing the physical settlement of trades after they have been agreed upon	☐ Shipping ☐ Warehousing ☐ Inspection
5606	Financial Services/ Risk Management	☐ Facilitating the financing and transfer of funds between parties to a transaction ☐ Minimizing the risks of fraud, reneging, etc., at this exchange and providing tools to mitigate trade-related risks	☐ Payment processing ☐ Receivables management ☐ Financing/ credit ☐ Authentication ☐ Warranties ☐ Derivatives/options

Figure 56

Needs During Buy/Sell Process



Buyer	☐ Needs assessment tools ☐ Assistance in selecting an appropriate product to buy ☐ Access to consistent product information ☐ Access to consistent market information	☐ Ability to check/assess product availability and supply ☐ Ability to check/assess product and pricing information ☐ Tools to determine seller's ability to perform	☐ Assistance in negotiating and deal structuring ☐ Advice on financial options ☐ Guidance on securing financing	☐ Ability to track order and fulfillment ☐ Arranging receipt and inspection of product ☐ Automated release of funds upon approval
Seller	☐ Identification and assessment of customer needs ☐ Assistance in selecting the appropriate product to sell ☐ Access to consistent product information ☐ Access to consistent market information	☐ Determine market demand for products ☐ Ability to assess pricing movements (spot, trends) ☐ Ability to validate buyers' ability to pay	☐ Perform credit risk assessment ☐ Assistance in deal / trade structuring ☐ Guidance on financial options available	☐ Integration with order processing area ☐ Ability to track order and fulfillment ☐ Automated receipt and posting of funds

Figure 57

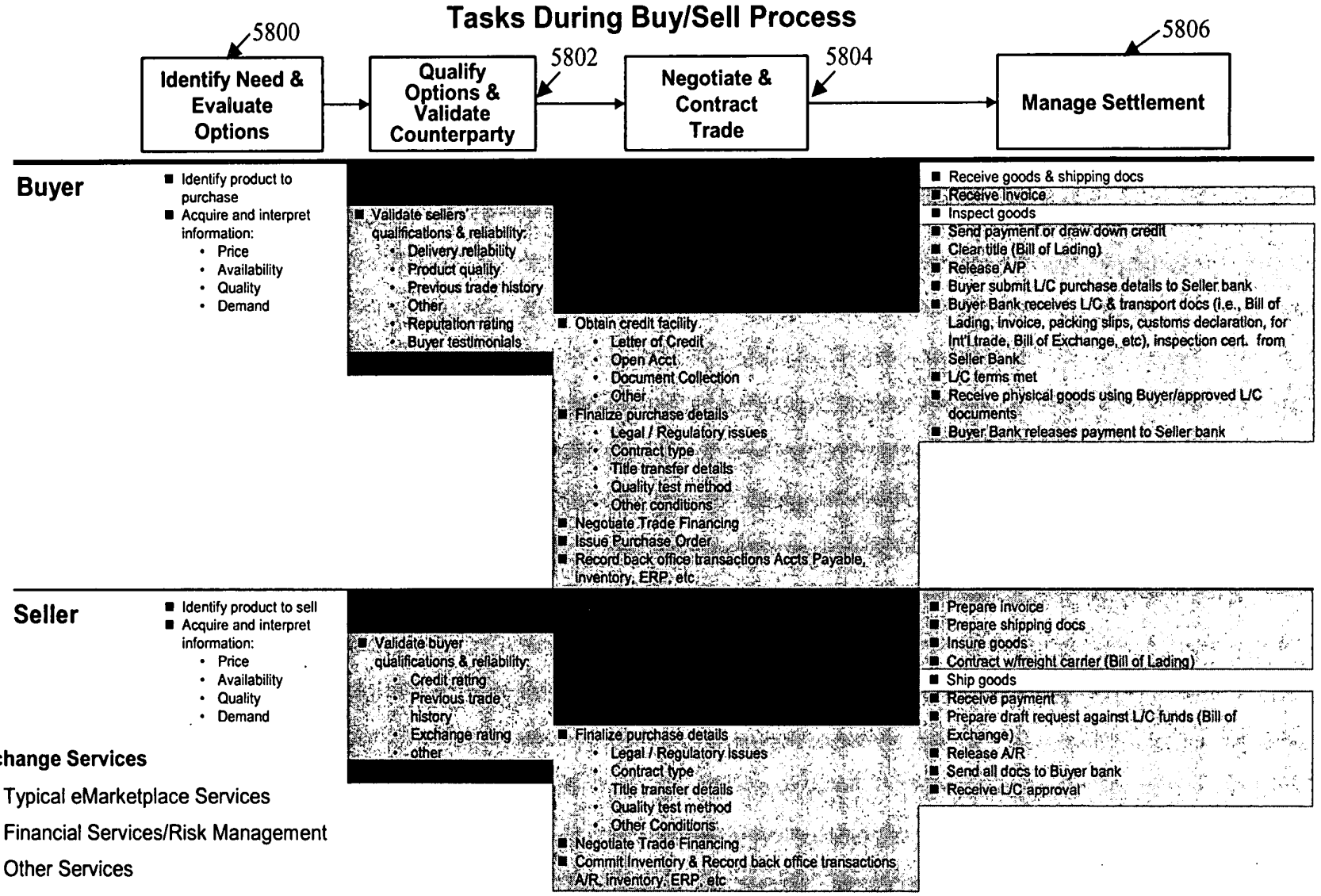

Tasks During Buy/Sell Process
5800
Identify Need & Evaluate Options
5802
Qualify Options & Validate Counterparty
5804
Negotiate & Contract Trade
5806
Manage Settlement
Buyer
Identify product to purchase
Acquire and interpret information:
Price
Availability
Quality
Demand
Validate sellers' qualifications & reliability:
Delivery reliability
Product quality
Previous trade history
Other
Reputation rating
Buyer testimonials
Obtain credit facility
Letter of Credit
Open Acct
Document Collection
Other
Finalize purchase details
Legal / Regulatory issues
Contract type
Title transfer details
Quality test method
Other conditions
Negotiate Trade Financing
Issue Purchase Order
Record back office transactions Accts Payable, Inventory, ERP, etc
Receive goods & shipping docs
Receive invoice
Inspect goods
Send payment or draw down credit
Clear title (Bill of Lading)
Release A/P
Buyer submit L/C purchase details to Seller bank
Buyer Bank receives L/C & transport docs (i.e., Bill of Lading, invoice, packing slips, customs declaration, for Int'l trade, Bill of Exchange, etc), inspection cert. from Seller Bank
L/C terms met
Receive physical goods using Buyer/approved L/C documents
Buyer Bank releases payment to Seller bank
Seller
Identify product to sell
Acquire and interpret information:
Price
Availability
Quality
Demand
Validate buyer qualifications & reliability:
Credit rating
Previous trade history
Exchange rating
other
Finalize purchase details
Legal / Regulatory issues
Contract type
Title transfer details
Quality test method
Other Conditions
Negotiate Trade Financing
Commit Inventory & Record back office transactions A/R, inventory, ERP, etc
Prepare invoice
Prepare shipping docs
Insure goods
Contract w/freight carrier (Bill of Lading)
Ship goods
Receive payment
Prepare draft request against L/C funds (Bill of Exchange)
Release A/R
Send all docs to Buyer bank
Receive L/C approval
Exchange Services
Typical eMarketplace Services
Financial Services/Risk Management
Other Services

Figure 58

Service Area	Service	Buyer/Seller Value Proposition	eMkt Place Value Proposition
Reputation Assessment 5900	☐ Online documentation of credit worthiness included in profile ☐ Credit rating engine based on historical transaction data ☐ Member-specified credit rating ☐ Authentication when using site	☐ Increases member confidence in trading partners	☐ Increases transaction volume and transaction-related revenues ☐ Potential service revenue (per credit profile provision)
Financing 5902	☐ Lines of credit, leasing, inventory financing ☐ Factoring, forfeiting, and other receivables financing services	☐ Provides access to cash flow management services	☐ Increases member entanglement ☐ Potential referral revenue
Risk Management 5904	☐ Foreign exchange services ☐ Insurance ☐ Hedging tools	☐ Provides access to services that might be otherwise unavailable to small members ☐ Provides seamless service that is more convenient than existing services (e.g., "one click")	☐ Increases member entanglement ☐ Potential referral revenue
ePayments 5906	☐ Credit Cards, ACH, SWIFT, wire transfers ☐ Letters of credit, documentary collection, or other intermediated payment vehicles, guaranteed payment ☐ Electronic bill presentment and payment ☐ Online document management	☐ Reduces counterparty payment risk ☐ Reduces transaction costs and time required to complete payment processing ☐ Increases speed and accuracy of document processing	☐ Potential to increase qualified member market / transaction volume and revenue ☐ Potential referral revenue Potential per-transaction revenue ☐ Facilitates eMarketplace revenue model
Information 5908	☐ Industry or product-related news ☐ Specific roles/regs ☐ Contacts and resources ☐ Decisions support/advice	☐ Enables informed decisions ☐ Provides real insights ☐ Can access additional info without leaving site	☐ Increases member usage and entanglement ☐ Positions provider as credible and knowledgeable resource ☐ Possible fee for service generator

Figure 59

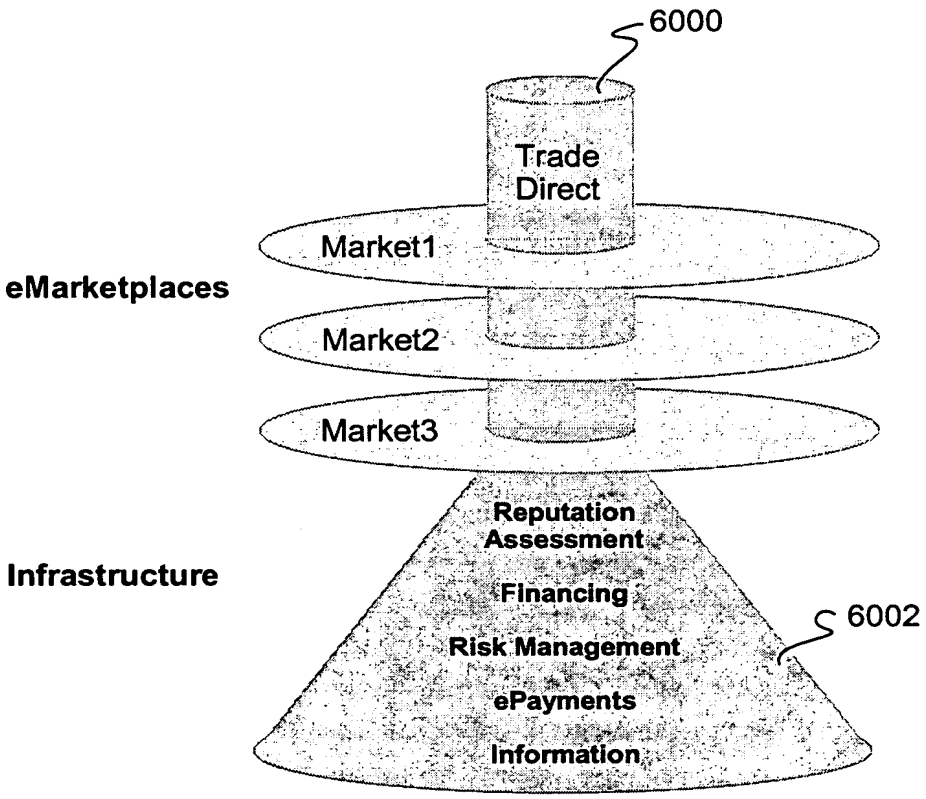

6000
Trade
Direct
Market1
Market2
Market3
eMarketplaces
Infrastructure
Reputation
Assessment
Financing
Risk Management
ePayments
Information
6002

Figure 60

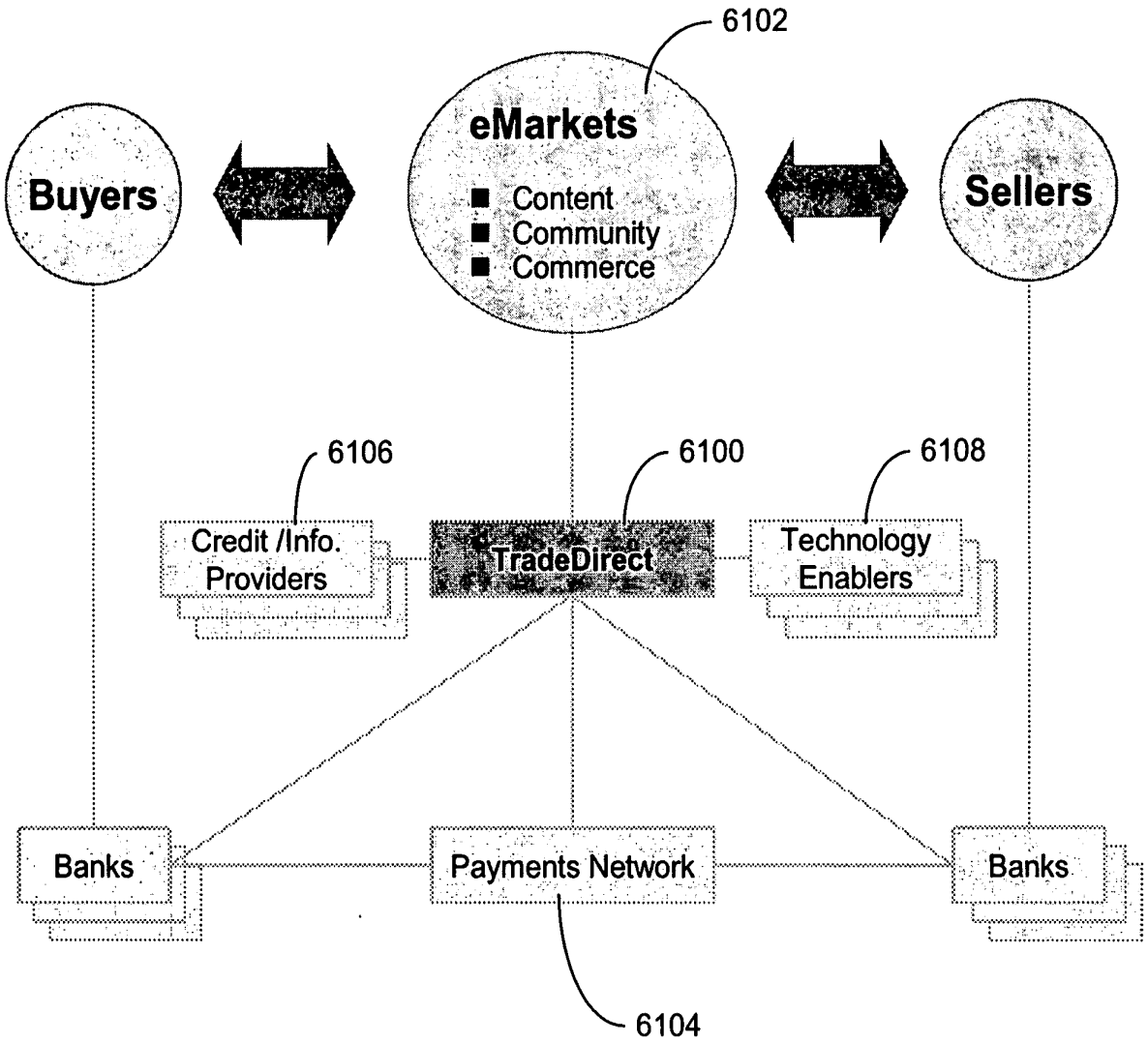

6102
eMarkets
Content
Community
Commerce
Buyers
Sellers
6106
6100
6108
Credit /Info. Providers
TradeDirect
Technology Enablers
Banks
Payments Network
Banks
6104

Figure 61

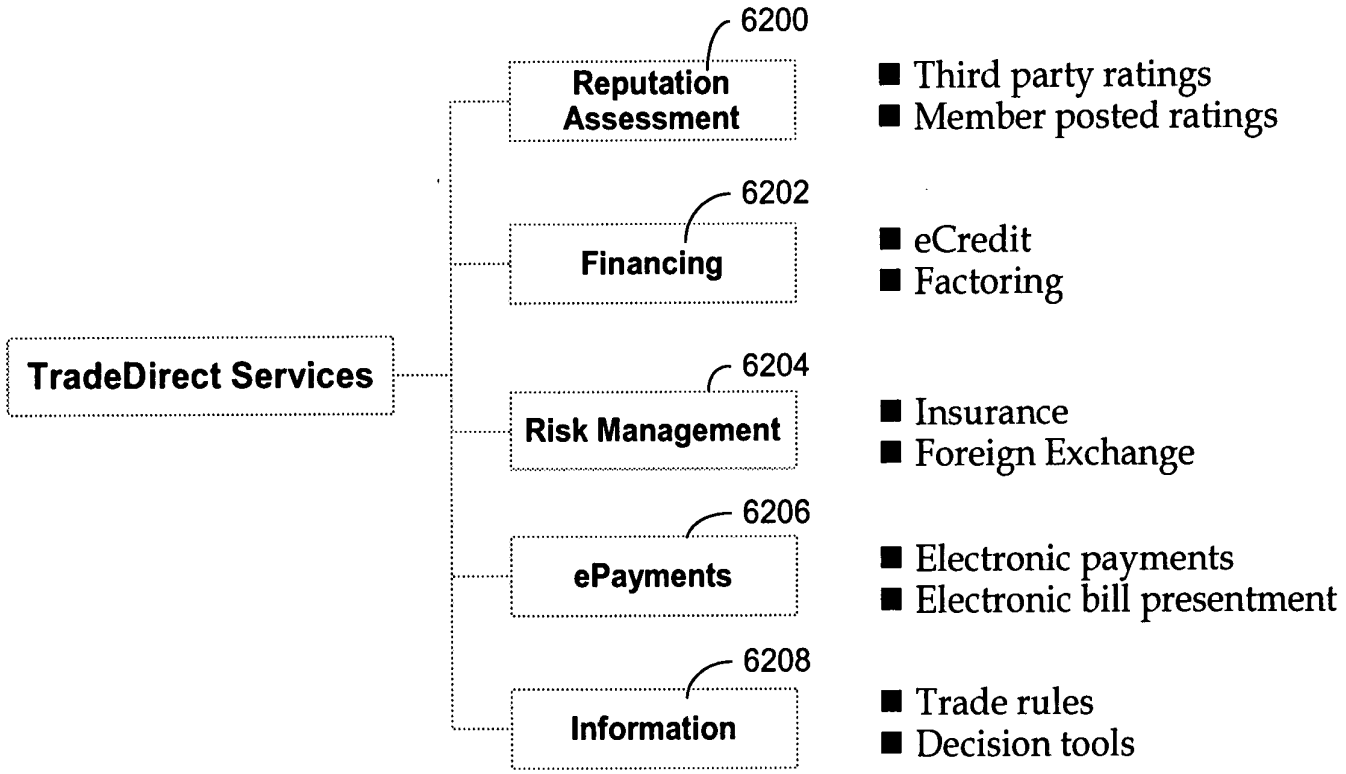

TradeDirect Services
6200
Reputation Assessment
Third party ratings
Member posted ratings
6202
Financing
eCredit
Factoring
6204
Risk Management
Insurance
Foreign Exchange
6206
ePayments
Electronic payments
Electronic bill presentment
6208
Information
Trade rules
Decision tools

Figure 62

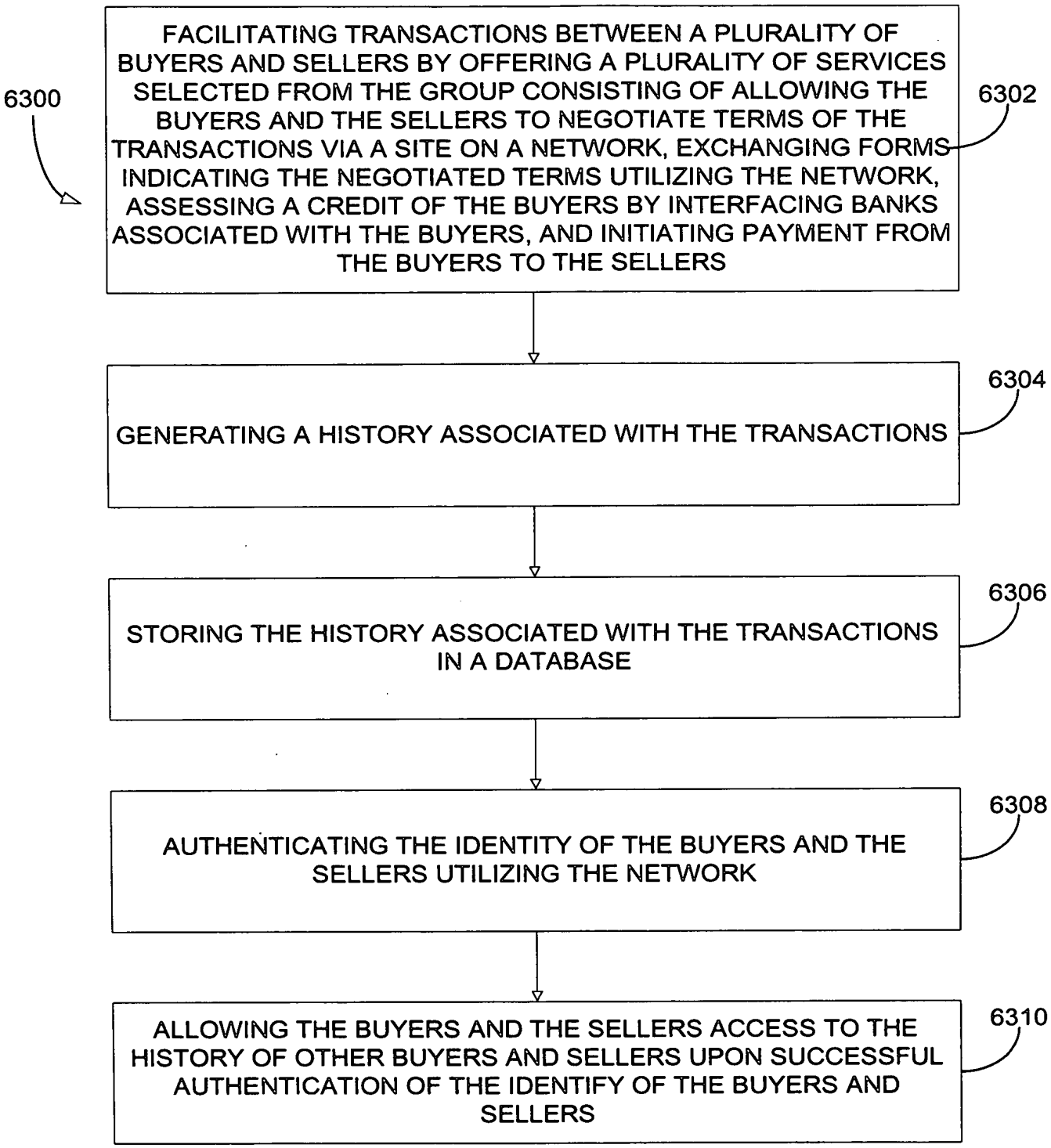

6300
FACILITATING TRANSACTIONS BETWEEN A PLURALITY OF BUYERS AND SELLERS BY OFFERING A PLURALITY OF SERVICES SELECTED FROM THE GROUP CONSISTING OF ALLOWING THE BUYERS AND THE SELLERS TO NEGOTIATE TERMS OF THE TRANSACTIONS VIA A SITE ON A NETWORK, EXCHANGING FORMS INDICATING THE NEGOTIATED TERMS UTILIZING THE NETWORK, ASSESSING A CREDIT OF THE BUYERS BY INTERFACING BANKS ASSOCIATED WITH THE BUYERS, AND INITIATING PAYMENT FROM THE BUYERS TO THE SELLERS
6302
GENERATING A HISTORY ASSOCIATED WITH THE TRANSACTIONS
6304
STORING THE HISTORY ASSOCIATED WITH THE TRANSACTIONS IN A DATABASE
6306
AUTHENTICATING THE IDENTITY OF THE BUYERS AND THE SELLERS UTILIZING THE NETWORK
6308
ALLOWING THE BUYERS AND THE SELLERS ACCESS TO THE HISTORY OF OTHER BUYERS AND SELLERS UPON SUCCESSFUL AUTHENTICATION OF THE IDENTIFY OF THE BUYERS AND SELLERS
6310

Figure 63

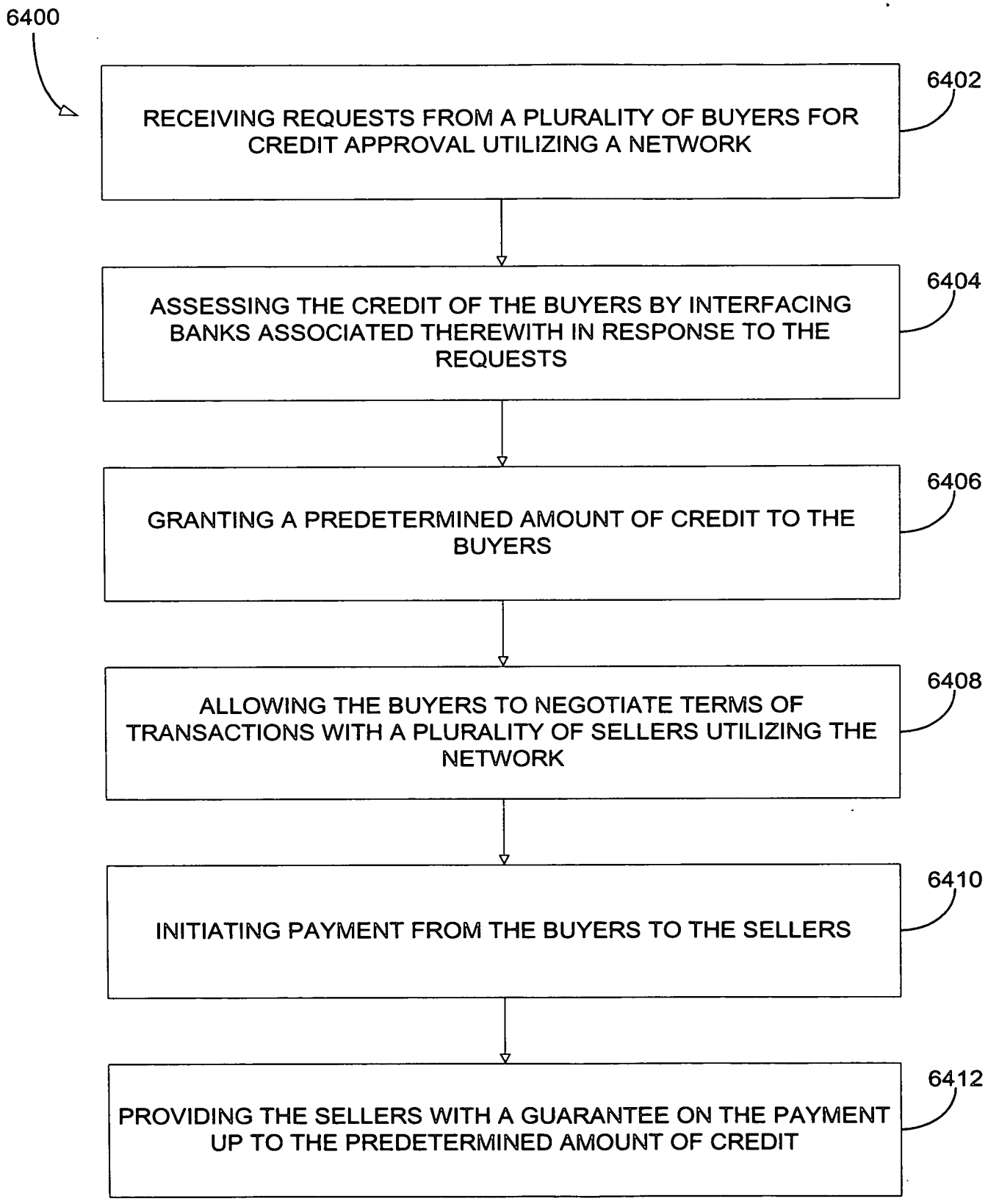

6400
RECEIVING REQUESTS FROM A PLURALITY OF BUYERS FOR CREDIT APPROVAL UTILIZING A NETWORK
6402
ASSESSING THE CREDIT OF THE BUYERS BY INTERFACING BANKS ASSOCIATED THEREWITH IN RESPONSE TO THE REQUESTS
6404
GRANTING A PREDETERMINED AMOUNT OF CREDIT TO THE BUYERS
6406
ALLOWING THE BUYERS TO NEGOTIATE TERMS OF TRANSACTIONS WITH A PLURALITY OF SELLERS UTILIZING THE NETWORK
6408
INITIATING PAYMENT FROM THE BUYERS TO THE SELLERS
6410
PROVIDING THE SELLERS WITH A GUARANTEE ON THE PAYMENT UP TO THE PREDETERMINED AMOUNT OF CREDIT
6412

Figure 64

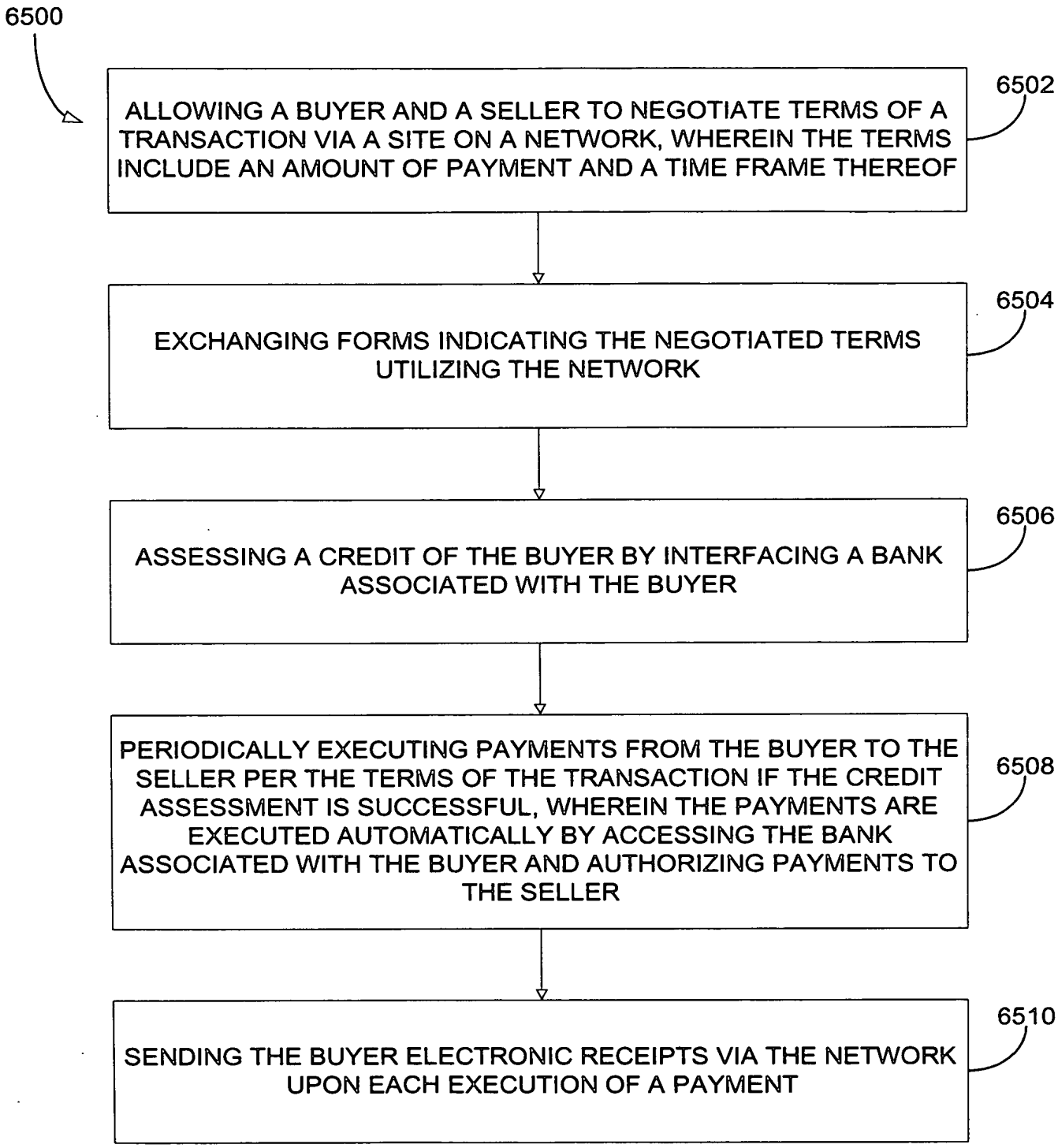

6500
ALLOWING A BUYER AND A SELLER TO NEGOTIATE TERMS OF A TRANSACTION VIA A SITE ON A NETWORK, WHEREIN THE TERMS INCLUDE AN AMOUNT OF PAYMENT AND A TIME FRAME THEREOF
6502
EXCHANGING FORMS INDICATING THE NEGOTIATED TERMS UTILIZING THE NETWORK
6504
ASSESSING A CREDIT OF THE BUYER BY INTERFACING A BANK ASSOCIATED WITH THE BUYER
6506
PERIODICALLY EXECUTING PAYMENTS FROM THE BUYER TO THE SELLER PER THE TERMS OF THE TRANSACTION IF THE CREDIT ASSESSMENT IS SUCCESSFUL, WHEREIN THE PAYMENTS ARE EXECUTED AUTOMATICALLY BY ACCESSING THE BANK ASSOCIATED WITH THE BUYER AND AUTHORIZING PAYMENTS TO THE SELLER
6508
SENDING THE BUYER ELECTRONIC RECEIPTS VIA THE NETWORK UPON EACH EXECUTION OF A PAYMENT
6510

Figure 65

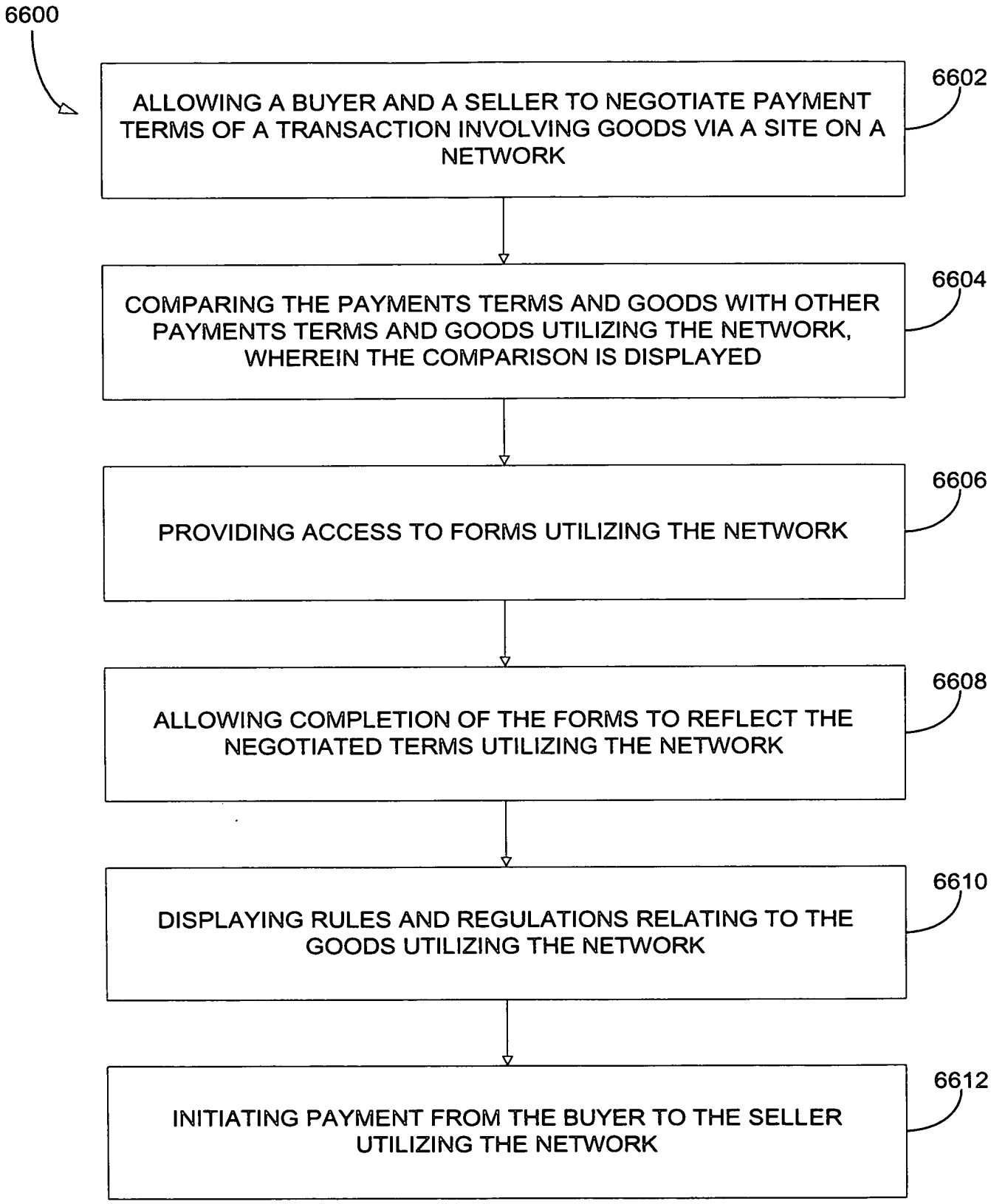

6600
ALLOWING A BUYER AND A SELLER TO NEGOTIATE PAYMENT TERMS OF A TRANSACTION INVOLVING GOODS VIA A SITE ON A NETWORK
6602
COMPARING THE PAYMENTS TERMS AND GOODS WITH OTHER PAYMENTS TERMS AND GOODS UTILIZING THE NETWORK, WHEREIN THE COMPARISON IS DISPLAYED
6604
PROVIDING ACCESS TO FORMS UTILIZING THE NETWORK
6606
ALLOWING COMPLETION OF THE FORMS TO REFLECT THE NEGOTIATED TERMS UTILIZING THE NETWORK
6608
DISPLAYING RULES AND REGULATIONS RELATING TO THE GOODS UTILIZING THE NETWORK
6610
INITIATING PAYMENT FROM THE BUYER TO THE SELLER UTILIZING THE NETWORK
6612

Figure 66

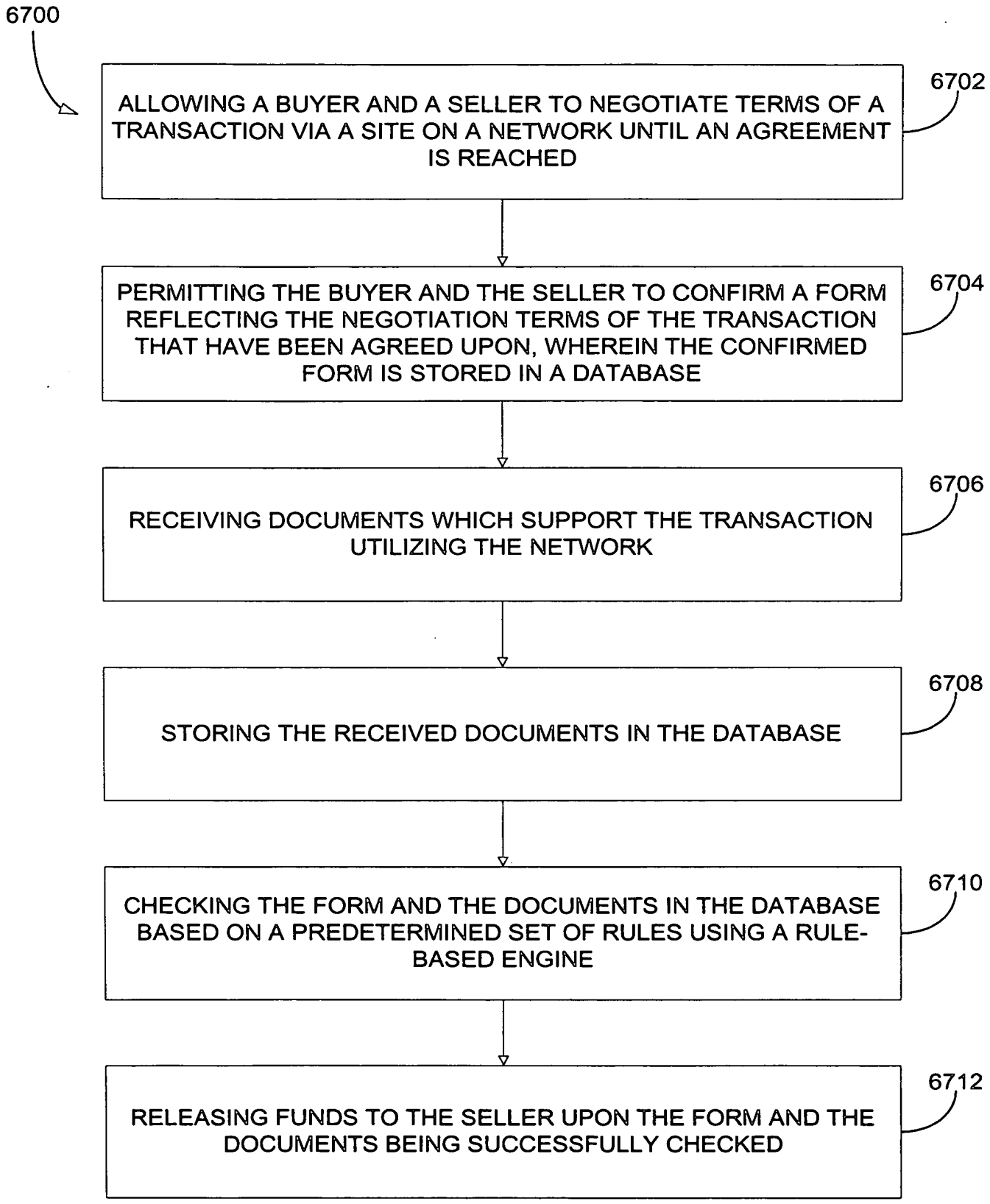

6700
ALLOWING A BUYER AND A SELLER TO NEGOTIATE TERMS OF A TRANSACTION VIA A SITE ON A NETWORK UNTIL AN AGREEMENT IS REACHED
6702
PERMITTING THE BUYER AND THE SELLER TO CONFIRM A FORM REFLECTING THE NEGOTIATION TERMS OF THE TRANSACTION THAT HAVE BEEN AGREED UPON, WHEREIN THE CONFIRMED FORM IS STORED IN A DATABASE
6704
RECEIVING DOCUMENTS WHICH SUPPORT THE TRANSACTION UTILIZING THE NETWORK
6706
STORING THE RECEIVED DOCUMENTS IN THE DATABASE
6708
CHECKING THE FORM AND THE DOCUMENTS IN THE DATABASE BASED ON A PREDETERMINED SET OF RULES USING A RULE-BASED ENGINE
6710
RELEASING FUNDS TO THE SELLER UPON THE FORM AND THE DOCUMENTS BEING SUCCESSFULLY CHECKED
6712

Figure 67

Reputation Assessment

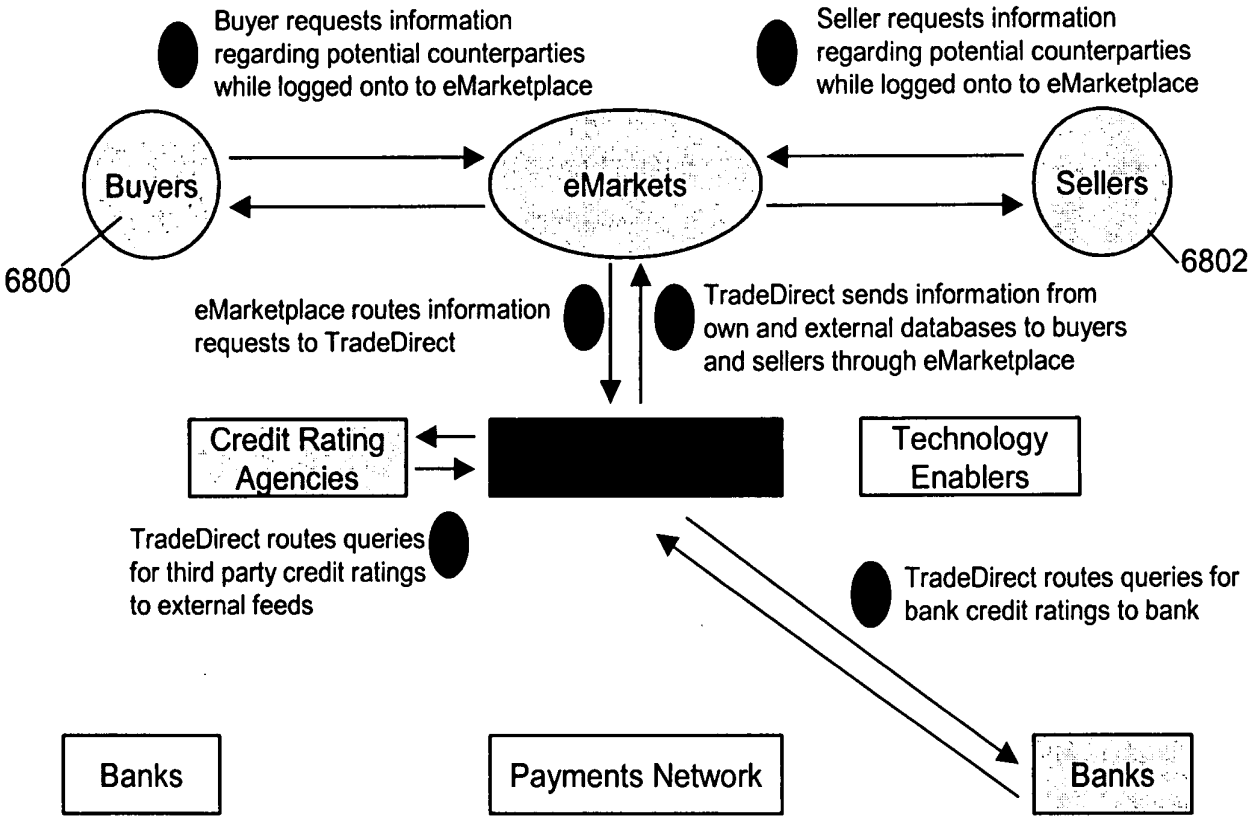


Figure 68

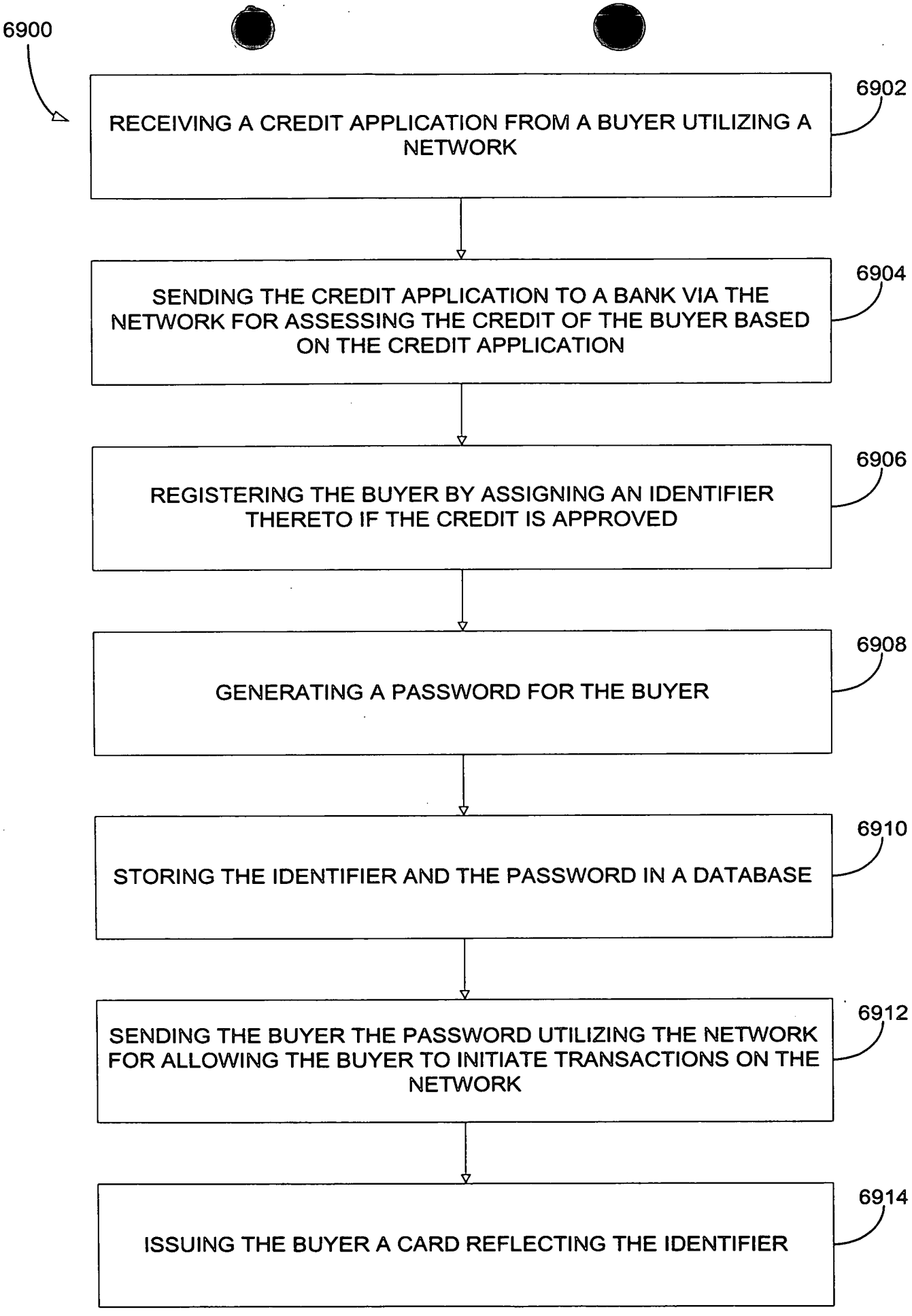

6900
RECEIVING A CREDIT APPLICATION FROM A BUYER UTILIZING A NETWORK
6902
SENDING THE CREDIT APPLICATION TO A BANK VIA THE NETWORK FOR ASSESSING THE CREDIT OF THE BUYER BASED ON THE CREDIT APPLICATION
6904
REGISTERING THE BUYER BY ASSIGNING AN IDENTIFIER THERETO IF THE CREDIT IS APPROVED
6906
GENERATING A PASSWORD FOR THE BUYER
6908
STORING THE IDENTIFIER AND THE PASSWORD IN A DATABASE
6910
SENDING THE BUYER THE PASSWORD UTILIZING THE NETWORK FOR ALLOWING THE BUYER TO INITIATE TRANSACTIONS ON THE NETWORK
6912
ISSUING THE BUYER A CARD REFLECTING THE IDENTIFIER
6914

Figure 69

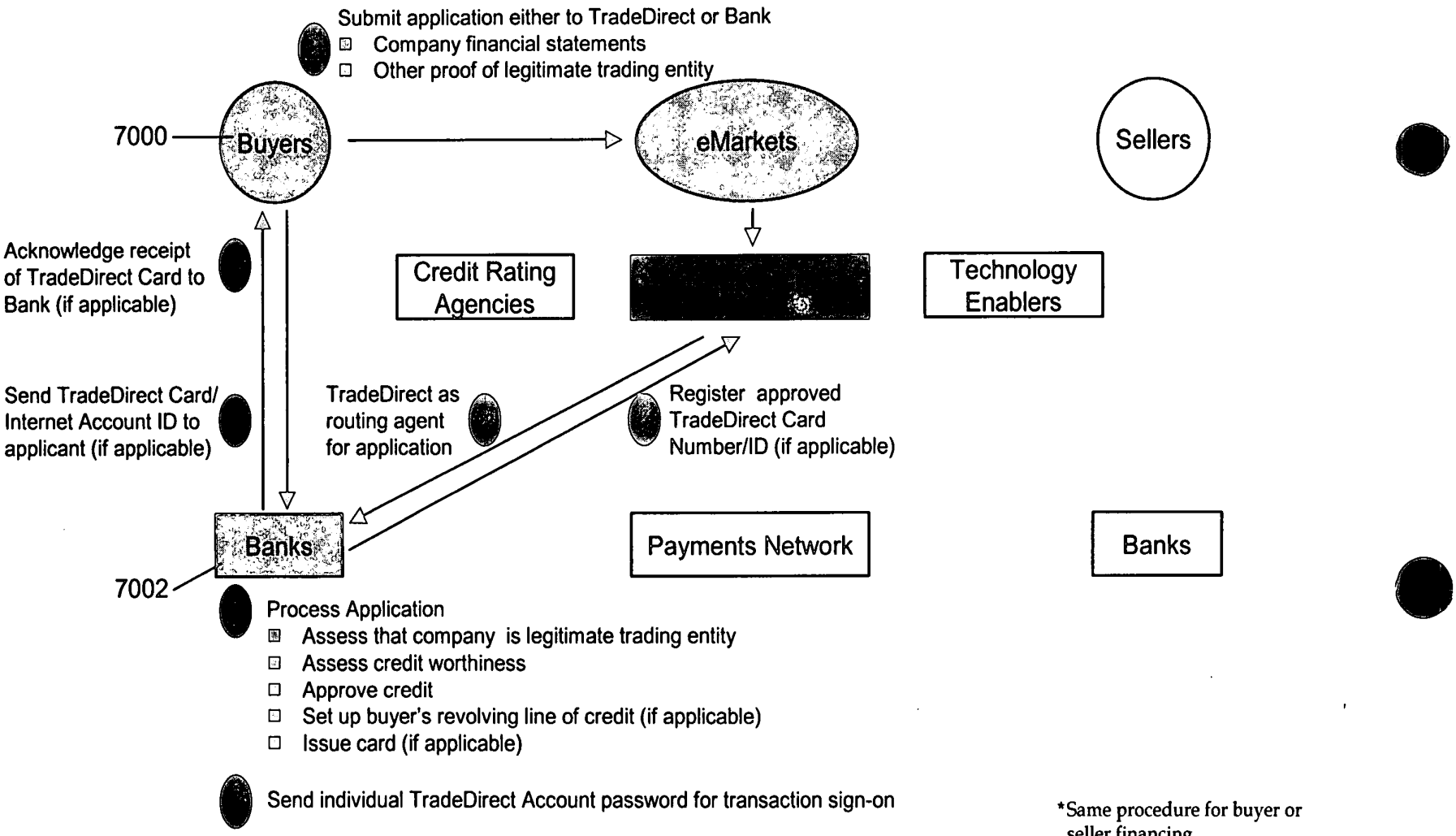

Financing*
Submit application either to TradeDirect or Bank
Company financial statements
Other proof of legitimate trading entity
7000
Buyers
eMarkets
Sellers
Acknowledge receipt of TradeDirect Card to Bank (if applicable)
Credit Rating Agencies
Technology Enablers
Send TradeDirect Card/ Internet Account ID to applicant (if applicable)
TradeDirect as routing agent for application
Register approved TradeDirect Card Number/ID (if applicable)
Banks
Payments Network
Banks
7002
Process Application
Assess that company is legitimate trading entity
Assess credit worthiness
Approve credit
Set up buyer's revolving line of credit (if applicable)
Issue card (if applicable)
Send individual TradeDirect Account password for transaction sign-on
*Same procedure for buyer or seller financing

Figure 70

Risk Management

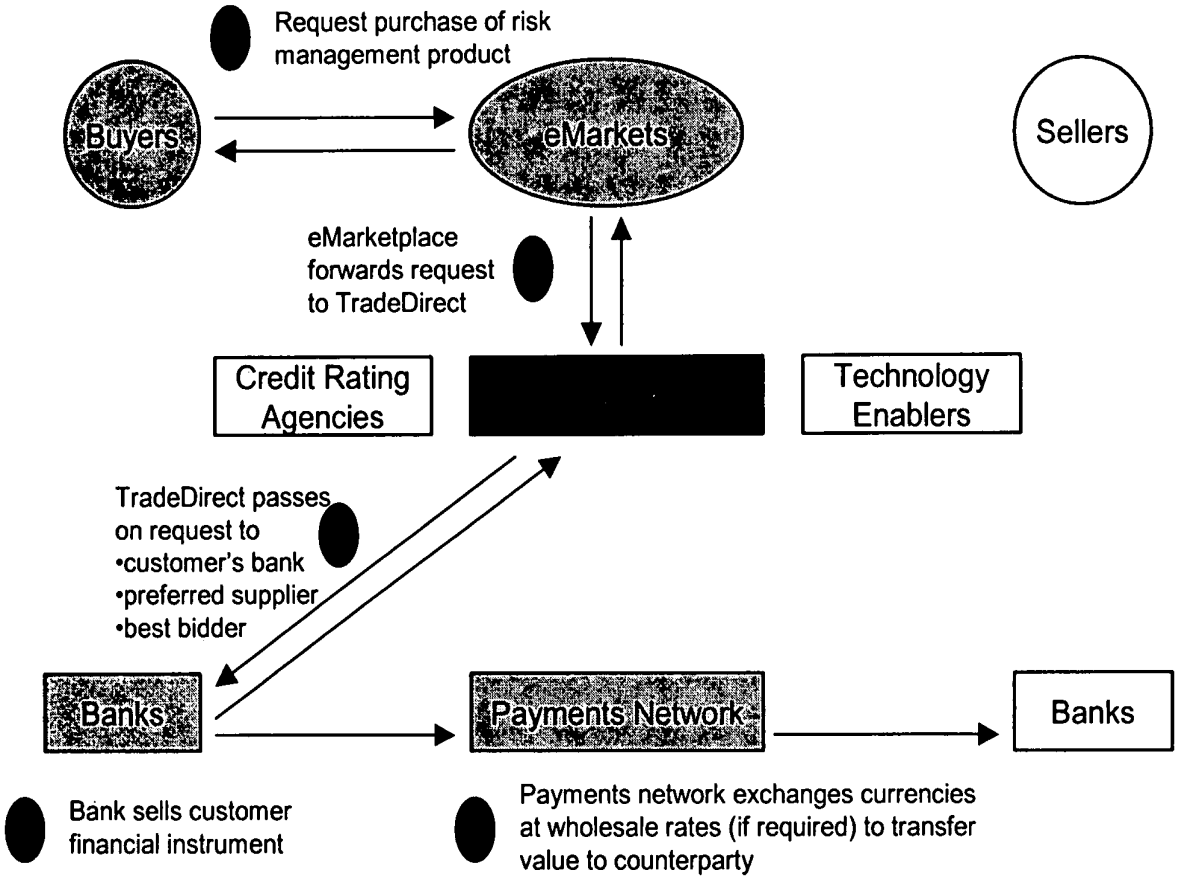


Figure 71

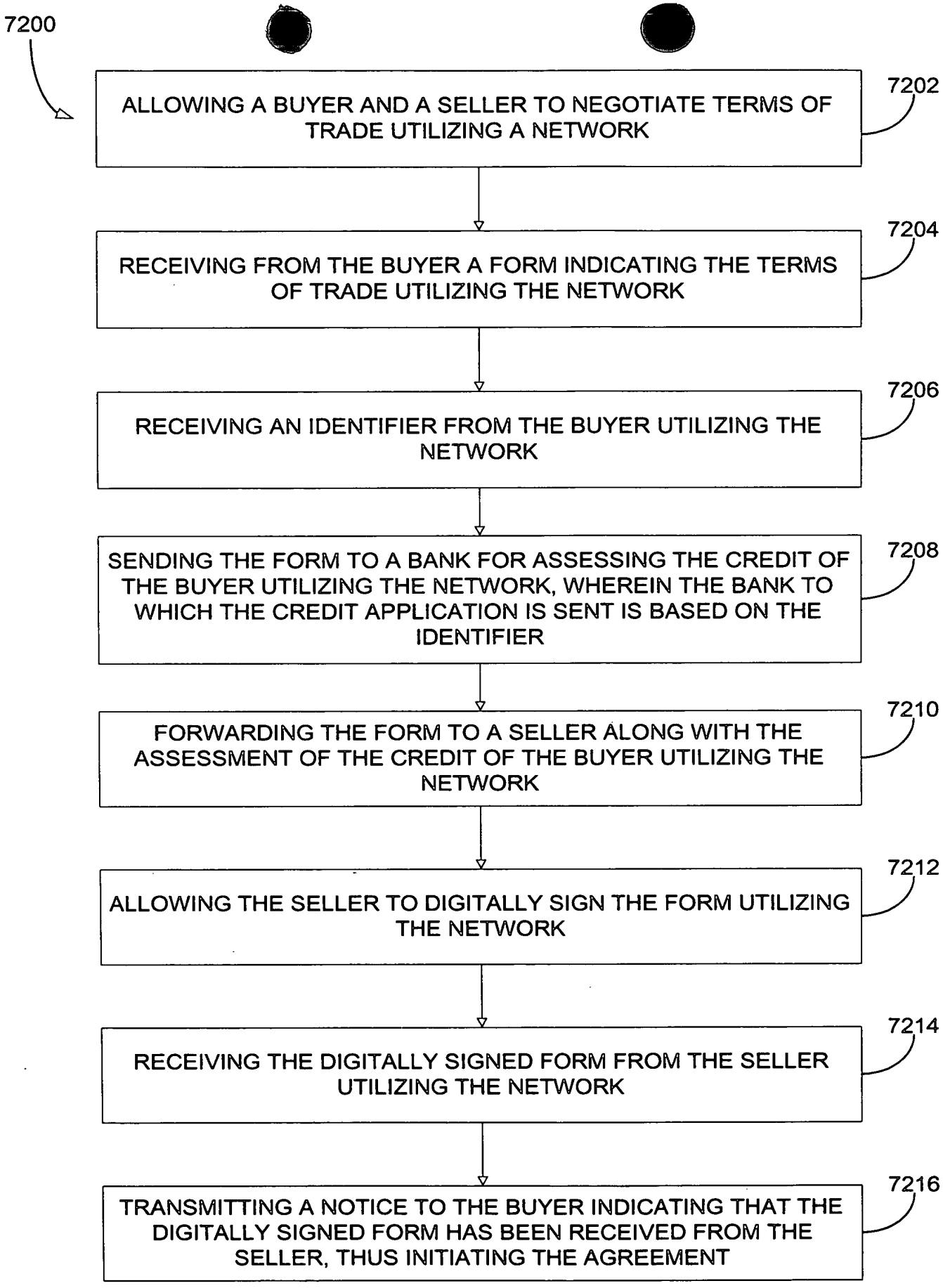

7200
ALLOWING A BUYER AND A SELLER TO NEGOTIATE TERMS OF TRADE UTILIZING A NETWORK
7202
RECEIVING FROM THE BUYER A FORM INDICATING THE TERMS OF TRADE UTILIZING THE NETWORK
7204
RECEIVING AN IDENTIFIER FROM THE BUYER UTILIZING THE NETWORK
7206
SENDING THE FORM TO A BANK FOR ASSESSING THE CREDIT OF THE BUYER UTILIZING THE NETWORK, WHEREIN THE BANK TO WHICH THE CREDIT APPLICATION IS SENT IS BASED ON THE IDENTIFIER
7208
FORWARDING THE FORM TO A SELLER ALONG WITH THE ASSESSMENT OF THE CREDIT OF THE BUYER UTILIZING THE NETWORK
7210
ALLOWING THE SELLER TO DIGITALLY SIGN THE FORM UTILIZING THE NETWORK
7212
RECEIVING THE DIGITALLY SIGNED FORM FROM THE SELLER UTILIZING THE NETWORK
7214
TRANSMITTING A NOTICE TO THE BUYER INDICATING THAT THE DIGITALLY SIGNED FORM HAS BEEN RECEIVED FROM THE SELLER, THUS INITIATING THE AGREEMENT
7216

Figure 72

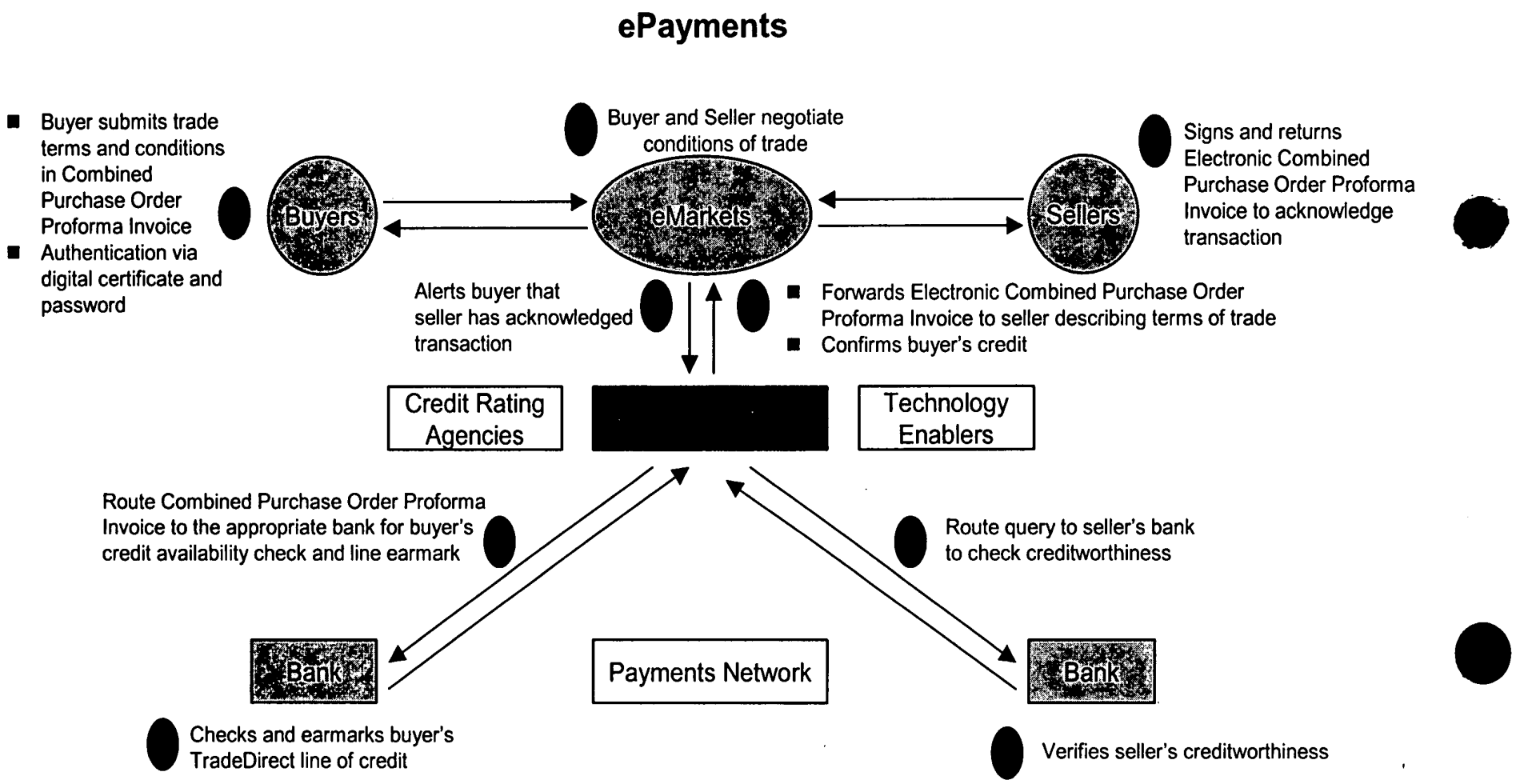

ePayments
Buyer submits trade terms and conditions in Combined Purchase Order Proforma Invoice
Authentication via digital certificate and password
Buyers
Buyer and Seller negotiate conditions of trade
eMarkets
Sellers
Signs and returns Electronic Combined Purchase Order Proforma Invoice to acknowledge transaction
Alerts buyer that seller has acknowledged transaction
Forwards Electronic Combined Purchase Order Proforma Invoice to seller describing terms of trade
Confirms buyer's credit
Credit Rating Agencies
Technology Enablers
Route Combined Purchase Order Proforma Invoice to the appropriate bank for buyer's credit availability check and line earmark
Route query to seller's bank to check creditworthiness
Bank
Payments Network
Bank
Checks and earmarks buyer's TradeDirect line of credit
Verifies seller's creditworthiness

Figure 73

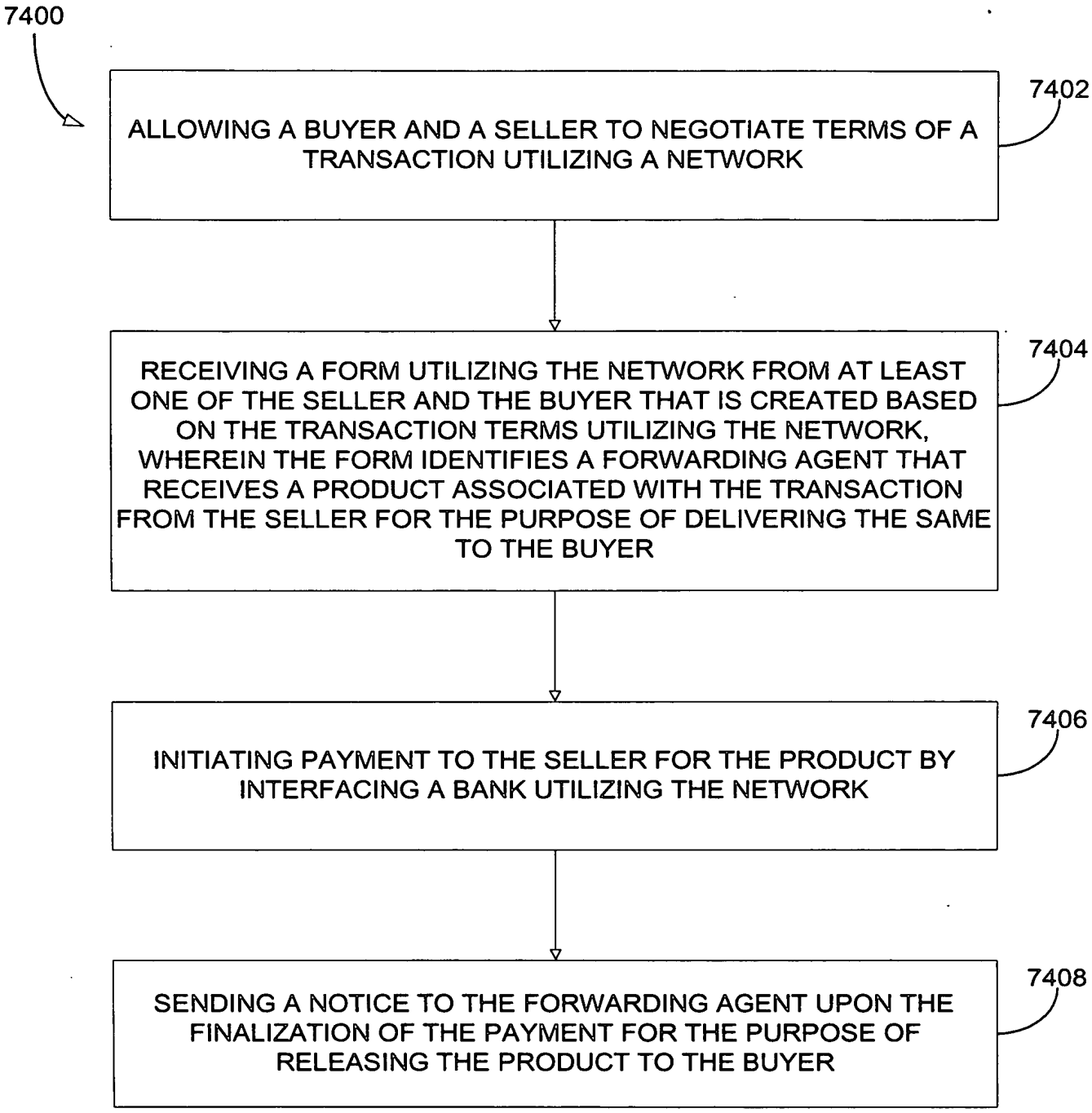

7400
ALLOWING A BUYER AND A SELLER TO NEGOTIATE TERMS OF A TRANSACTION UTILIZING A NETWORK
7402
RECEIVING A FORM UTILIZING THE NETWORK FROM AT LEAST ONE OF THE SELLER AND THE BUYER THAT IS CREATED BASED ON THE TRANSACTION TERMS UTILIZING THE NETWORK, WHEREIN THE FORM IDENTIFIES A FORWARDING AGENT THAT RECEIVES A PRODUCT ASSOCIATED WITH THE TRANSACTION FROM THE SELLER FOR THE PURPOSE OF DELIVERING THE SAME TO THE BUYER
7404
INITIATING PAYMENT TO THE SELLER FOR THE PRODUCT BY INTERFACING A BANK UTILIZING THE NETWORK
7406
SENDING A NOTICE TO THE FORWARDING AGENT UPON THE FINALIZATION OF THE PAYMENT FOR THE PURPOSE OF RELEASING THE PRODUCT TO THE BUYER
7408

Figure 74

ePayments (Cont.)

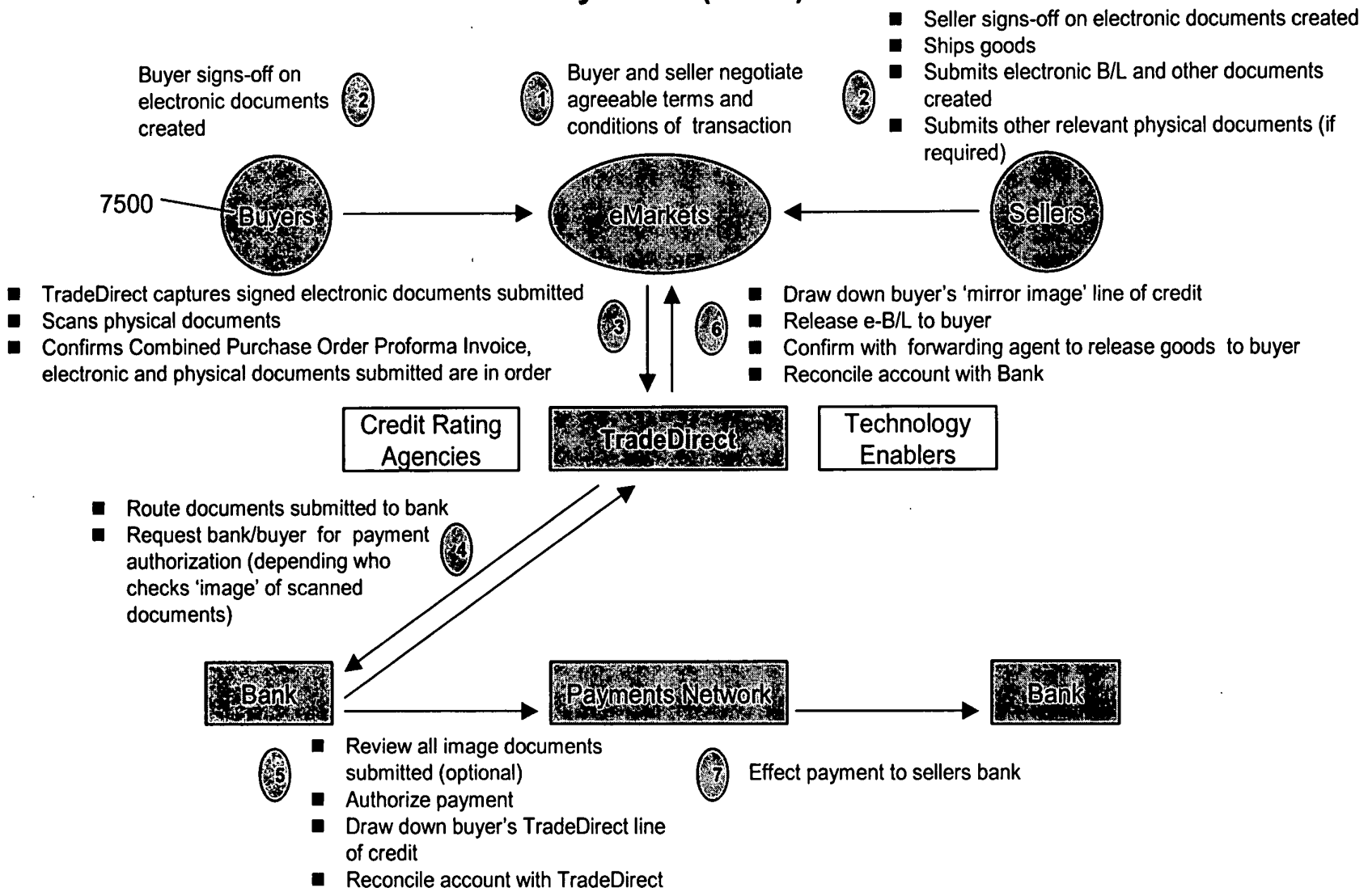


Figure 75

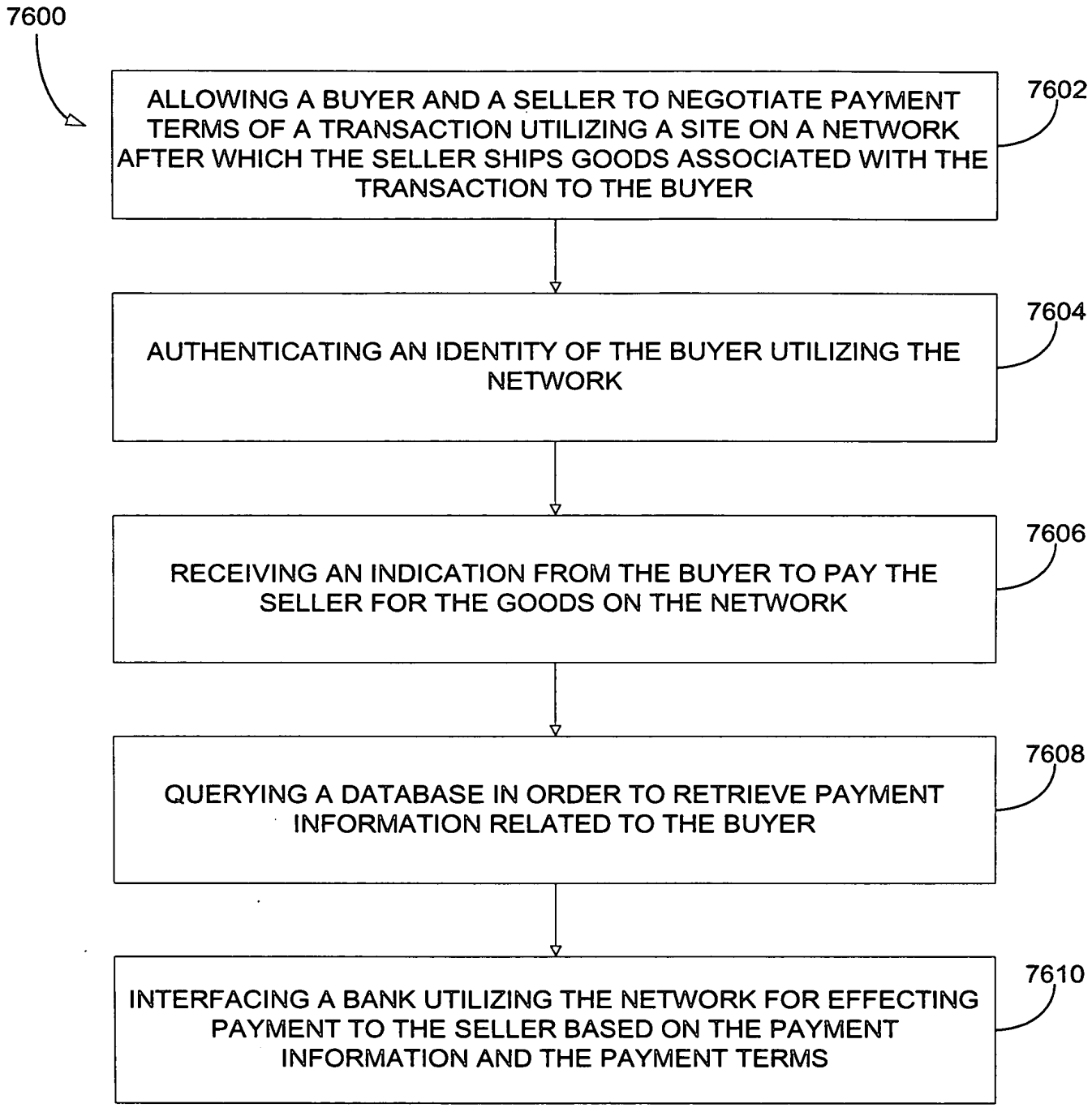

7600
ALLOWING A BUYER AND A SELLER TO NEGOTIATE PAYMENT TERMS OF A TRANSACTION UTILIZING A SITE ON A NETWORK AFTER WHICH THE SELLER SHIPS GOODS ASSOCIATED WITH THE TRANSACTION TO THE BUYER
7602
AUTHENTICATING AN IDENTITY OF THE BUYER UTILIZING THE NETWORK
7604
RECEIVING AN INDICATION FROM THE BUYER TO PAY THE SELLER FOR THE GOODS ON THE NETWORK
7606
QUERYING A DATABASE IN ORDER TO RETRIEVE PAYMENT INFORMATION RELATED TO THE BUYER
7608
INTERFACING A BANK UTILIZING THE NETWORK FOR EFFECTING PAYMENT TO THE SELLER BASED ON THE PAYMENT INFORMATION AND THE PAYMENT TERMS
7610

Figure 76

ePayments (Cont.)

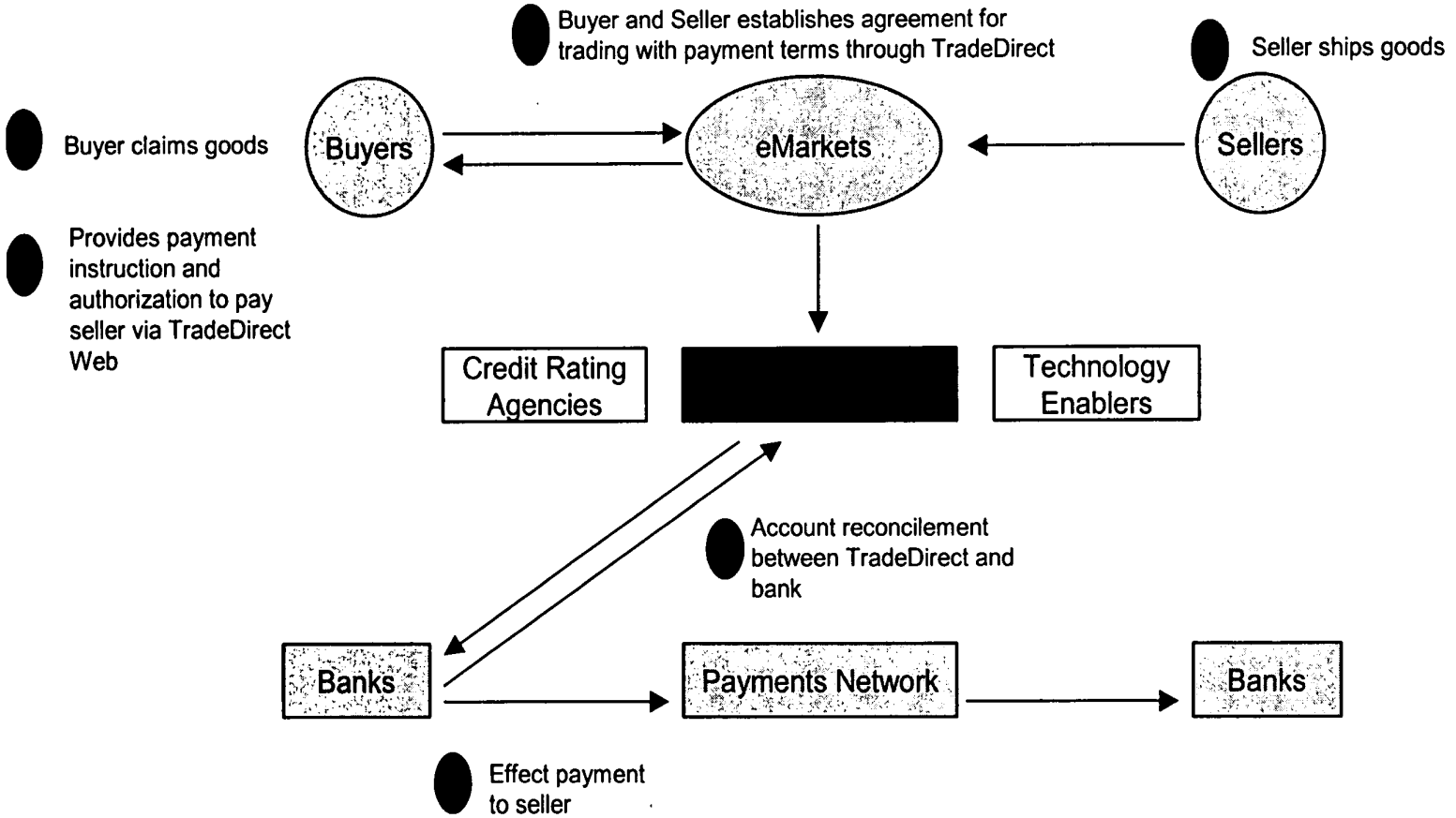


Figure 77

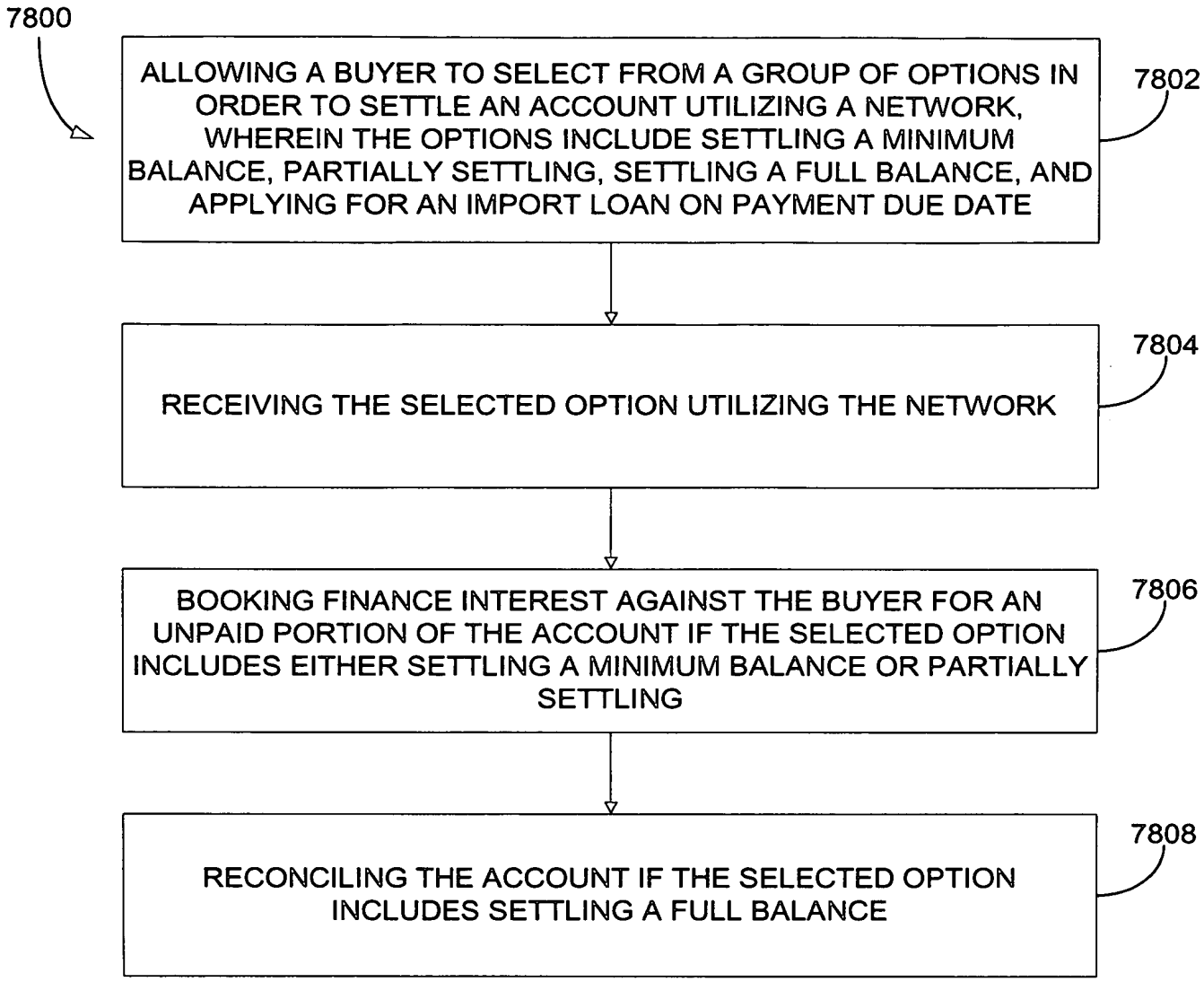
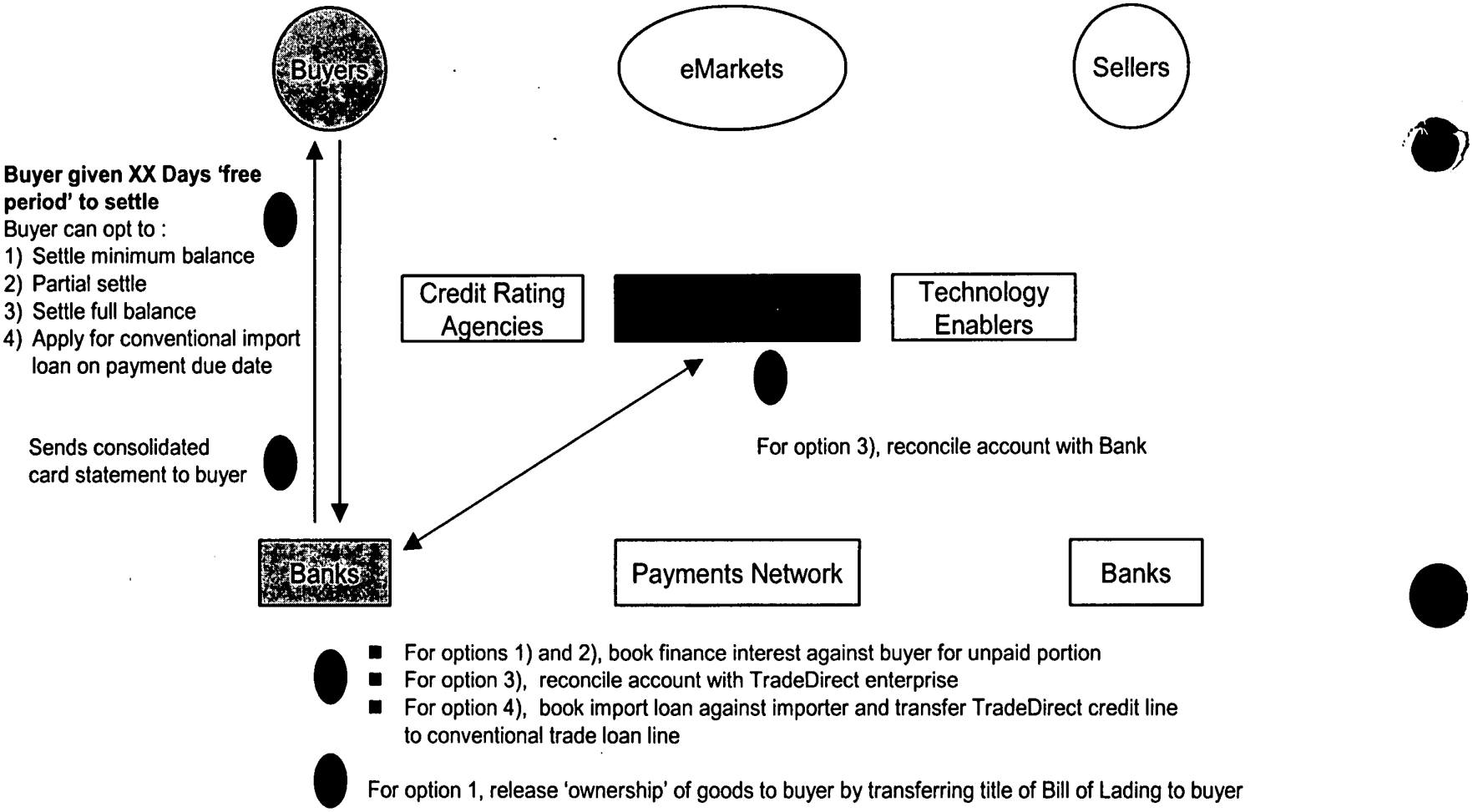

7800
ALLOWING A BUYER TO SELECT FROM A GROUP OF OPTIONS IN ORDER TO SETTLE AN ACCOUNT UTILIZING A NETWORK, WHEREIN THE OPTIONS INCLUDE SETTLING A MINIMUM BALANCE, PARTIALLY SETTLING, SETTLING A FULL BALANCE, AND APPLYING FOR AN IMPORT LOAN ON PAYMENT DUE DATE
7802
RECEIVING THE SELECTED OPTION UTILIZING THE NETWORK
7804
BOOKING FINANCE INTEREST AGAINST THE BUYER FOR AN UNPAID PORTION OF THE ACCOUNT IF THE SELECTED OPTION INCLUDES EITHER SETTLING A MINIMUM BALANCE OR PARTIALLY SETTLING
7806
RECONCILING THE ACCOUNT IF THE SELECTED OPTION INCLUDES SETTLING A FULL BALANCE
7808

Figure 78

ePayments (Cont.)*



*Same for buyer or seller

Figure 79

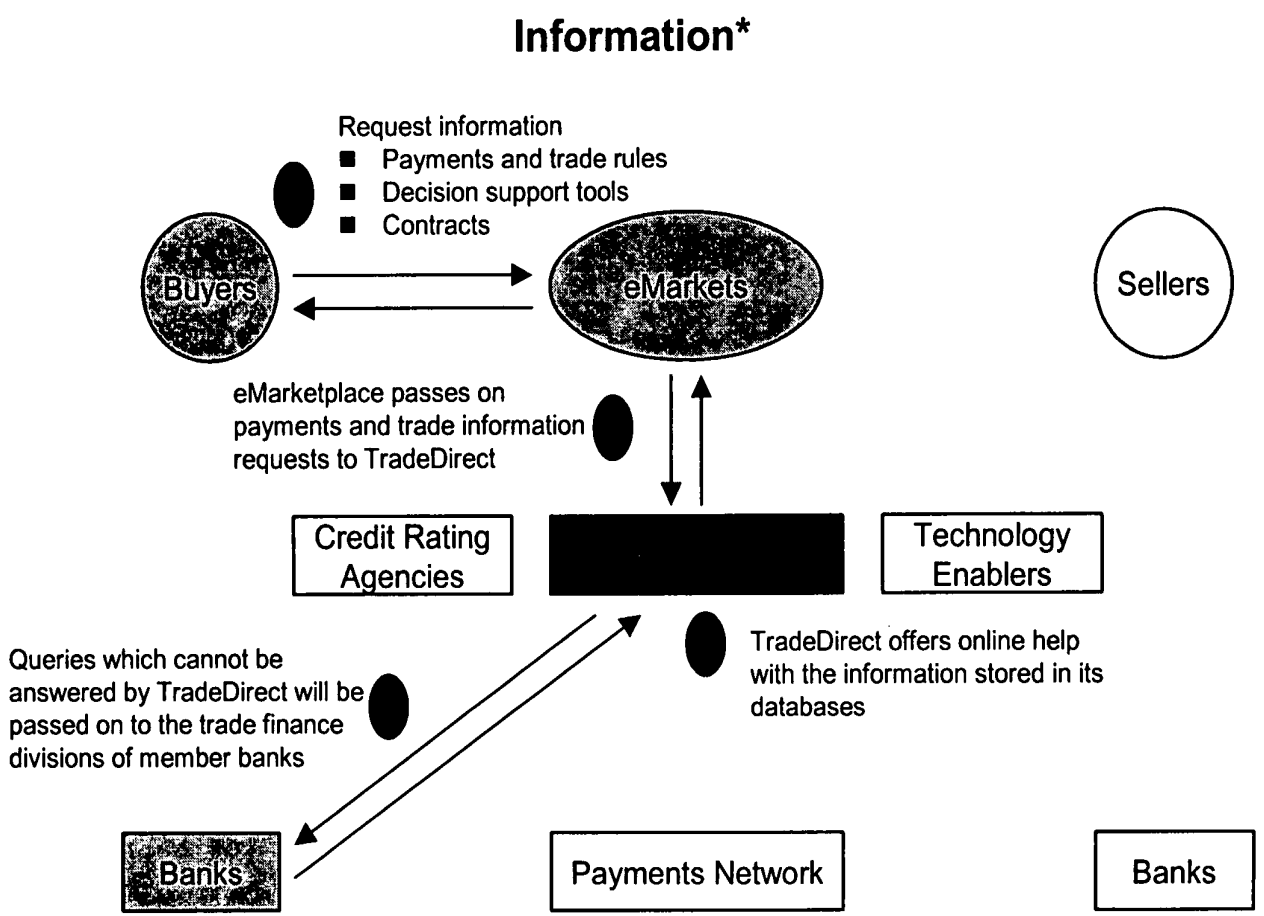

Information*
Request information
Payments and trade rules
Decision support tools
Contracts
Buyers
eMarkets
Sellers
eMarketplace passes on payments and trade information requests to TradeDirect
Credit Rating Agencies
Technology Enablers
TradeDirect offers online help with the information stored in its databases
Queries which cannot be answered by TradeDirect will be passed on to the trade finance divisions of member banks
Banks
Payments Network
Banks
*: same for buyer or seller

Figure 80

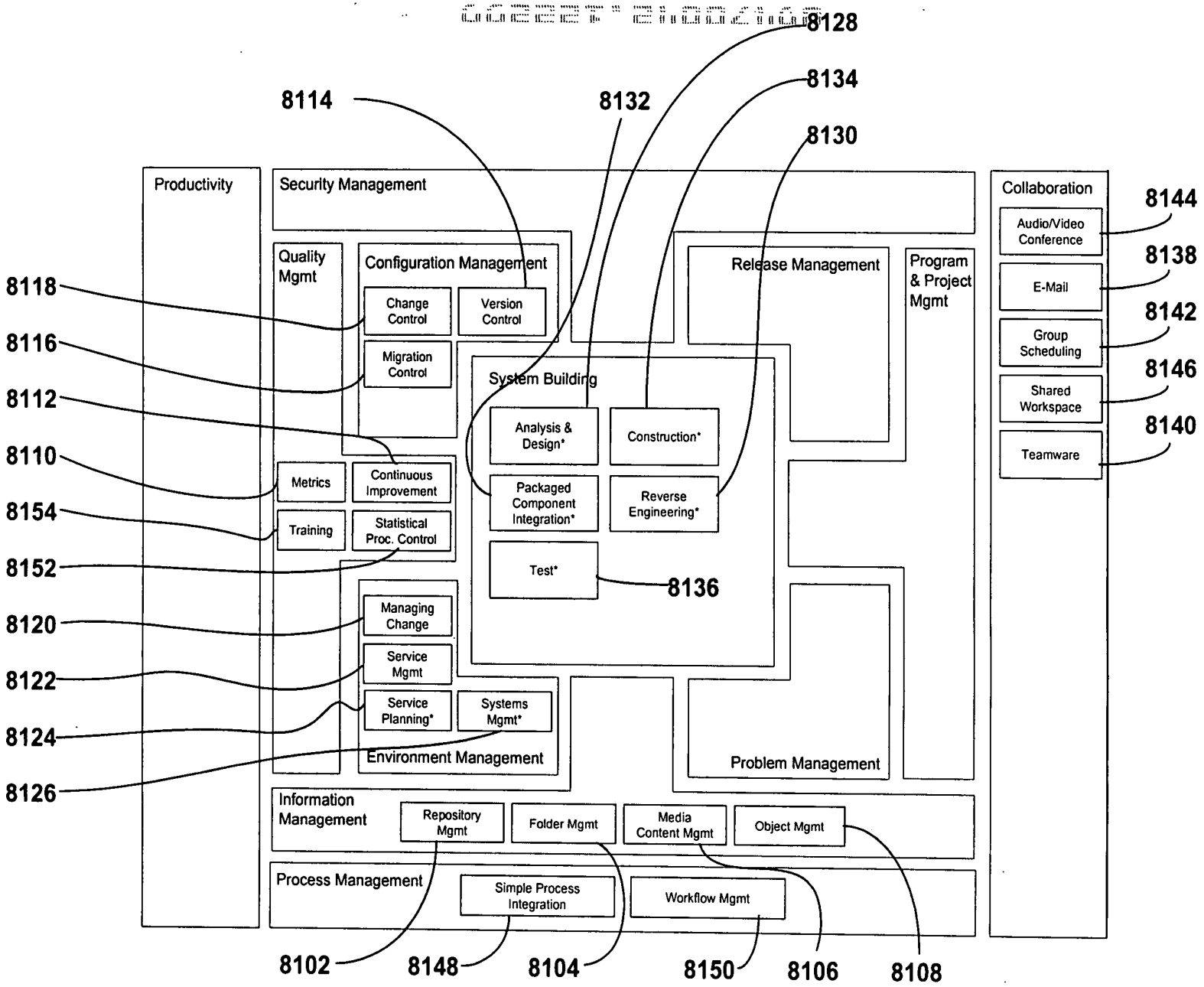

8128
8134
8114
8132
8130
Productivity
Security Management
Collaboration
8144
Audio/Video Conference
8138
E-Mail
8142
Group Scheduling
8146
Shared Workspace
8140
Teamware
Quality Mgmt
Configuration Management
Release Management
Program & Project Mgmt
8118
Change Control
Version Control
8116
Migration Control
System Building
8112
Analysis & Design*
Construction*
8110
Metrics
Continuous Improvement
Packaged Component Integration*
Reverse Engineering*
8154
Training
Statistical Proc. Control
8152
Test*
8136
Managing Change
8120
Service Mgmt
8122
Service Planning*
Systems Mgmt*
8124
Environment Management
8126
Problem Management
Information Management
Repository Mgmt
Folder Mgmt
Media Content Mgmt
Object Mgmt
Process Management
Simple Process Integration
Workflow Mgmt
8102
8148
8104
8150
8106
8108

Figure 81

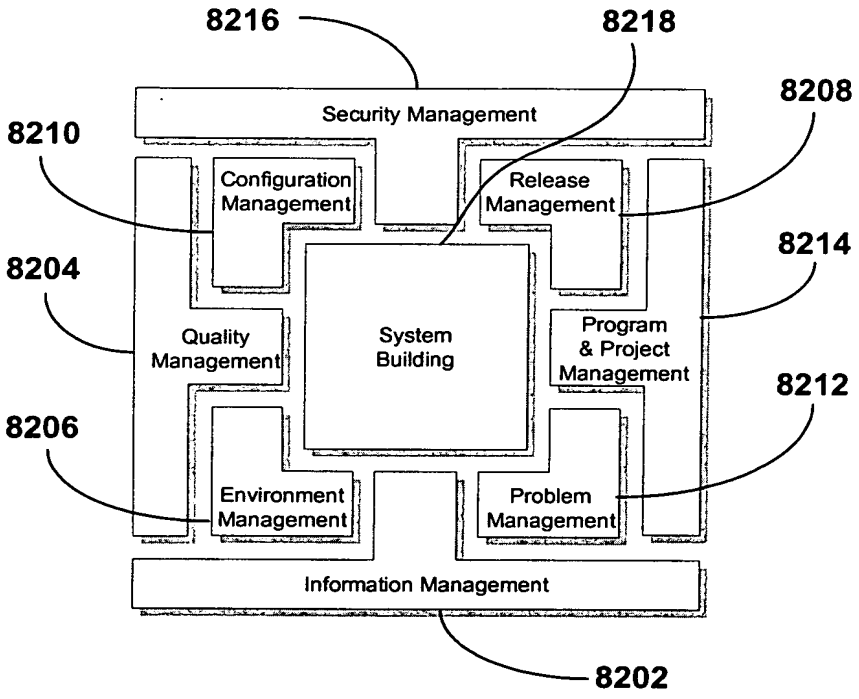

8216
8218
8208
Security Management
8210
Configuration Management
Release Management
8214
8204
Quality Management
System Building
Program & Project Management
8212
8206
Environment Management
Problem Management
Information Management
8202

Figure 82

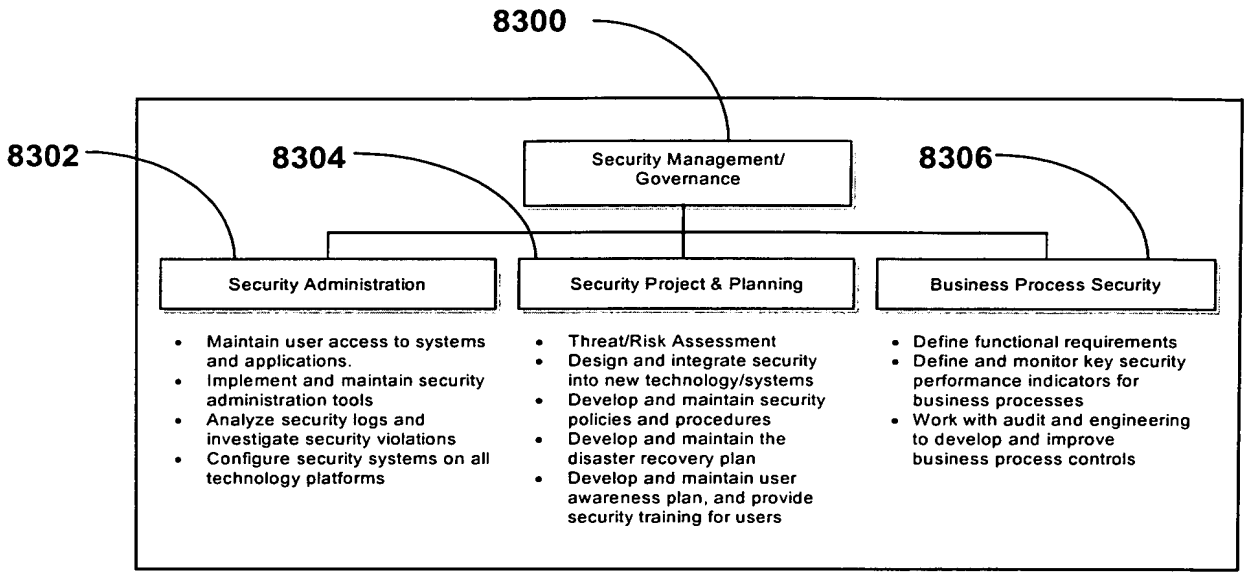

8300
8302
8304
8306
Security Management/ Governance
Security Administration
Security Project & Planning
Business Process Security
• Maintain user access to systems and applications.
• Implement and maintain security administration tools
• Analyze security logs and investigate security violations
• Configure security systems on all technology platforms
• Threat/Risk Assessment
• Design and integrate security into new technology/systems
• Develop and maintain security policies and procedures
• Develop and maintain the disaster recovery plan
• Develop and maintain user awareness plan, and provide security training for users
• Define functional requirements
• Define and monitor key security performance indicators for business processes
• Work with audit and engineering to develop and improve business process controls

Figure 83

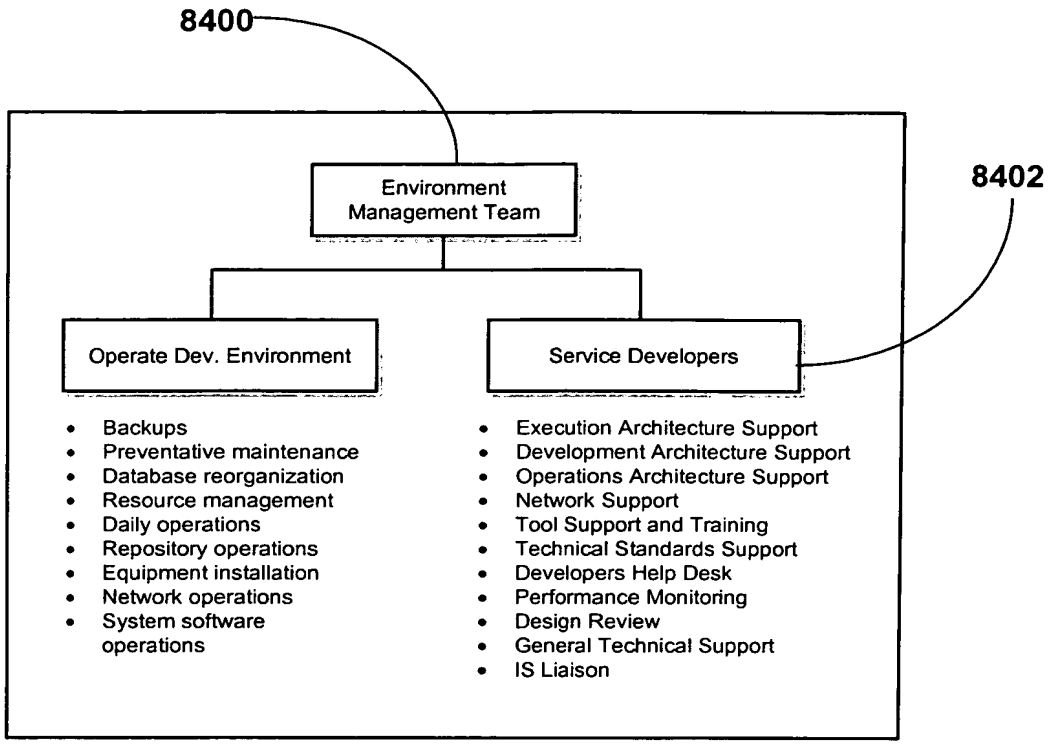

8400
8402
Environment Management Team
Operate Dev. Environment
Service Developers
Backups
Preventative maintenance
Database reorganization
Resource management
Daily operations
Repository operations
Equipment installation
Network operations
System software operations
Execution Architecture Support
Development Architecture Support
Operations Architecture Support
Network Support
Tool Support and Training
Technical Standards Support
Developers Help Desk
Performance Monitoring
Design Review
General Technical Support
IS Liaison

Figure 84

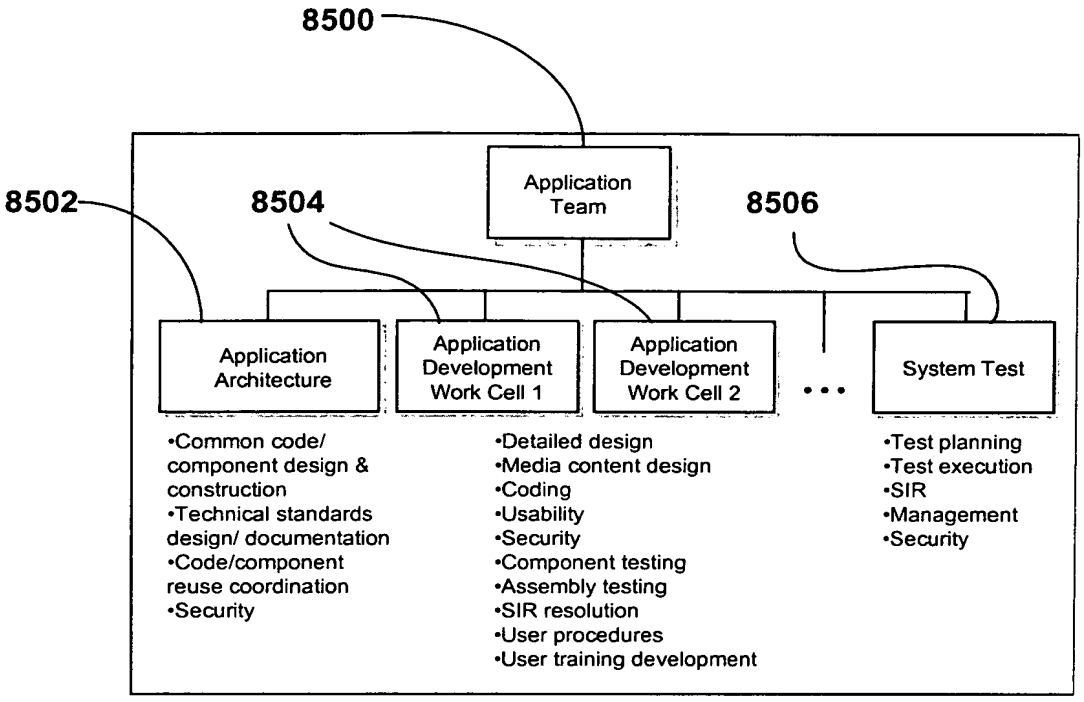

8500
8502
8504
8506
Application Team
Application Architecture
Application Development Work Cell 1
Application Development Work Cell 2
System Test
•Common code/ component design & construction
•Technical standards design/ documentation
•Code/component reuse coordination
•Security
•Detailed design
•Media content design
•Coding
•Usability
•Security
•Component testing
•Assembly testing
•SIR resolution
•User procedures
•User training development
•Test planning
•Test execution
•SIR
•Management
•Security

Figure 85

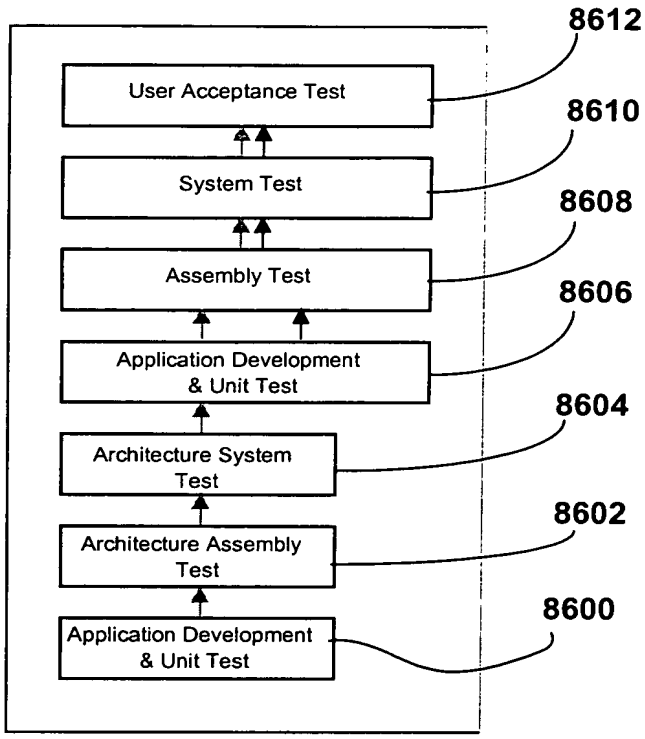

8612
User Acceptance Test
8610
System Test
8608
Assembly Test
8606
Application Development & Unit Test
8604
Architecture System Test
8602
Architecture Assembly Test
8600
Application Development & Unit Test

Figure 86

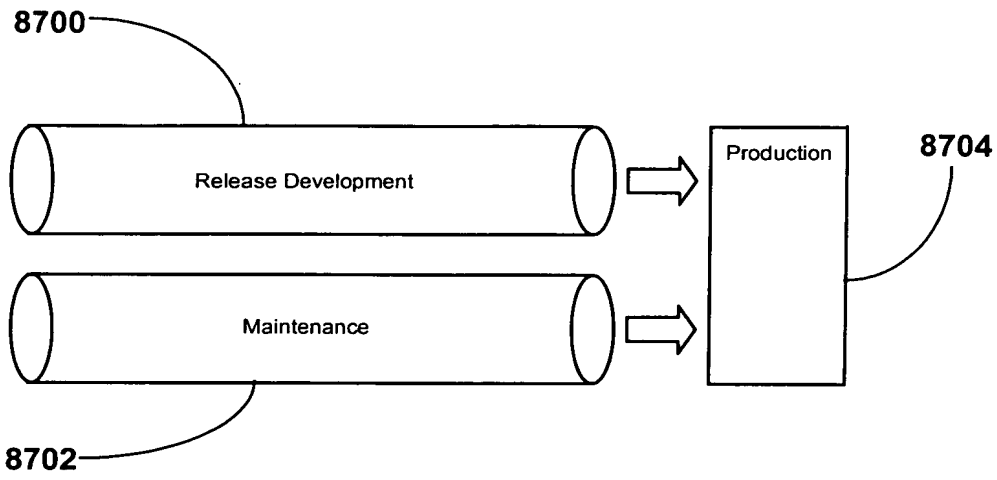

8700
Release Development
Maintenance
8702
Production
8704

Figure 87

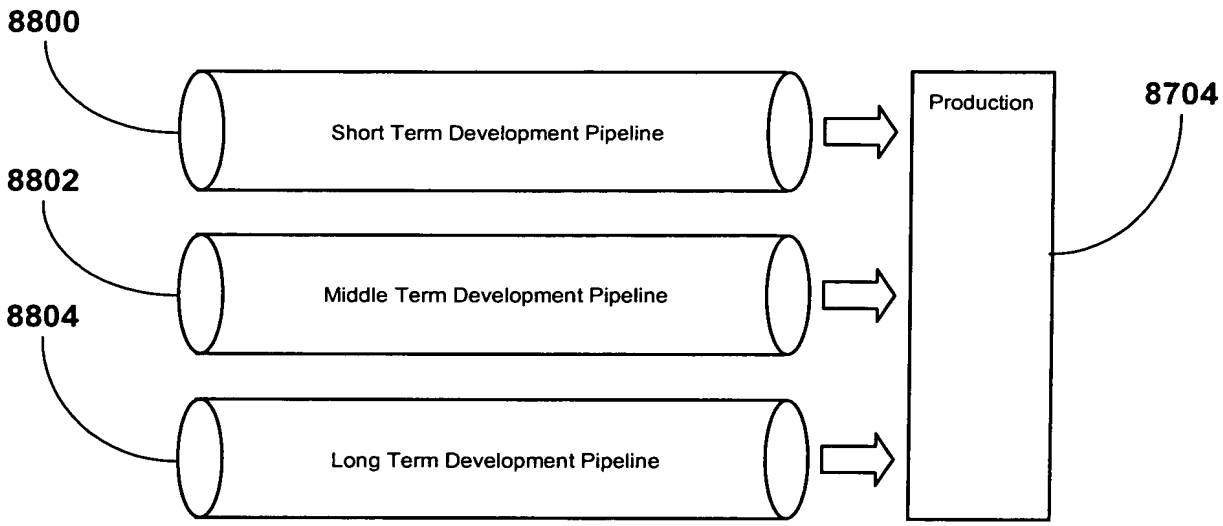

8800
Short Term Development Pipeline
8802
Middle Term Development Pipeline
8804
Long Term Development Pipeline
Production
8704

Figure 88

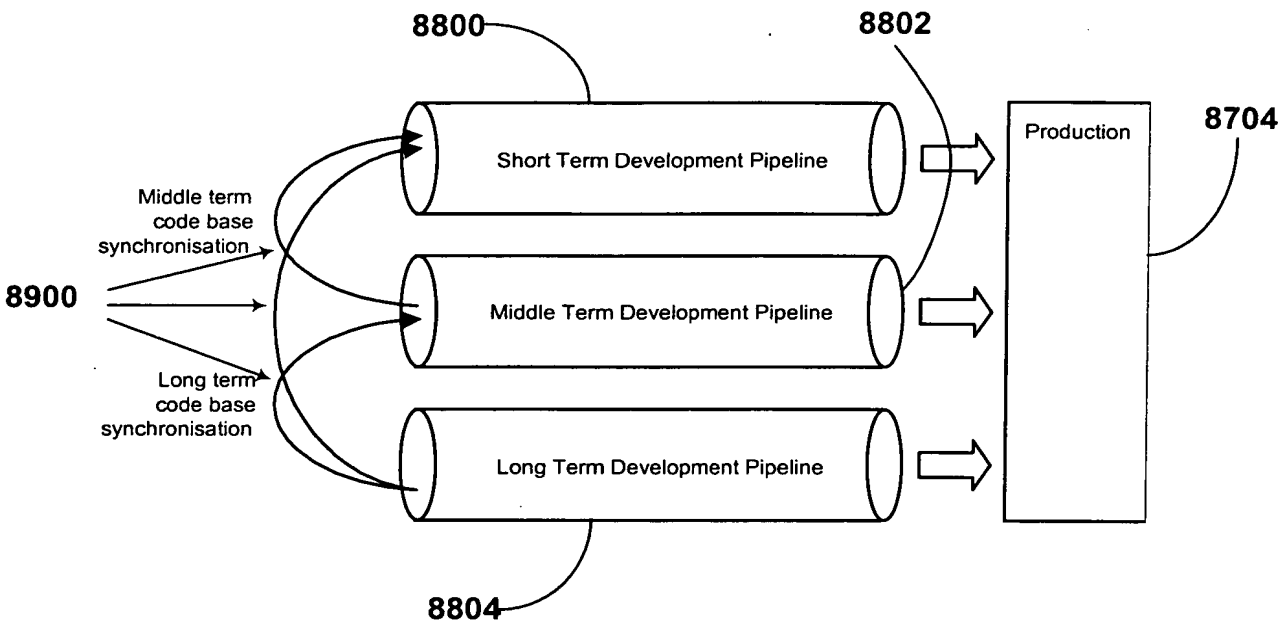

8800
8802
8704
Short Term Development Pipeline
Middle term
code base
synchronisation
8900
Middle Term Development Pipeline
Long term
code base
synchronisation
Long Term Development Pipeline
Production
8804

Figure 89

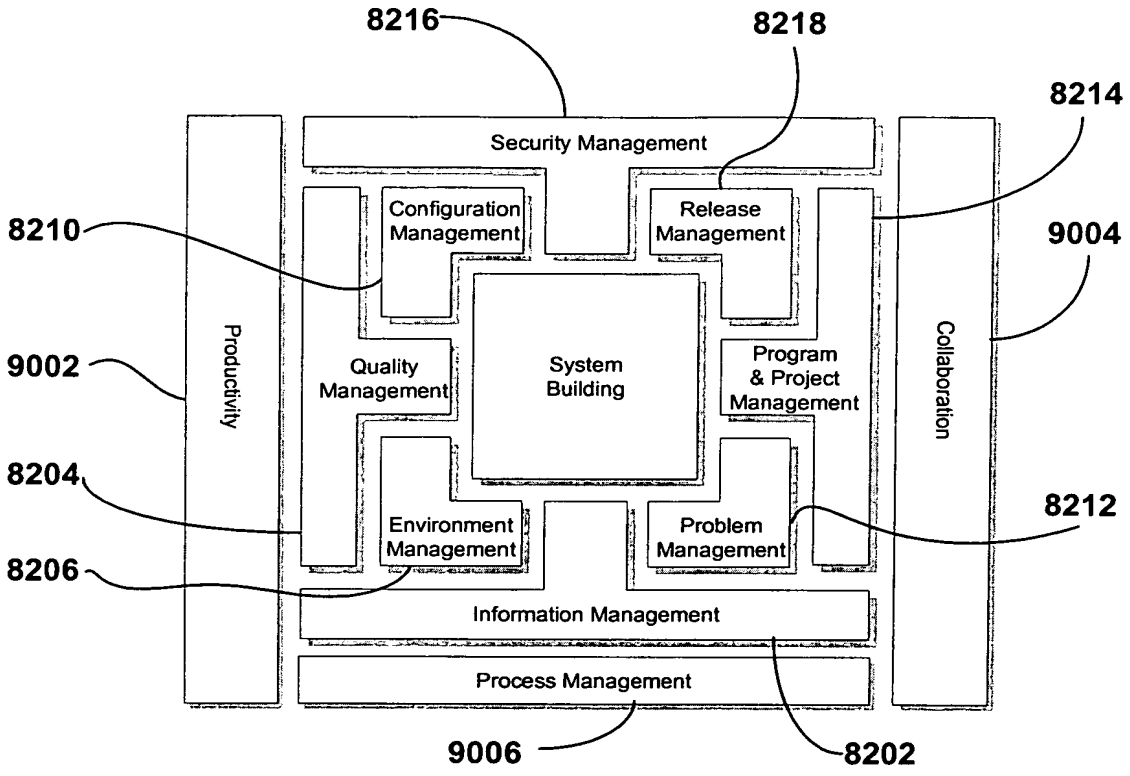

8216
8218
8214
Security Management
8210
Configuration Management
Release Management
9004
9002
Productivity
Quality Management
System Building
Program & Project Management
Collaboration
8204
8212
Environment Management
Problem Management
8206
Information Management
Process Management
9006
8202

Figure 90

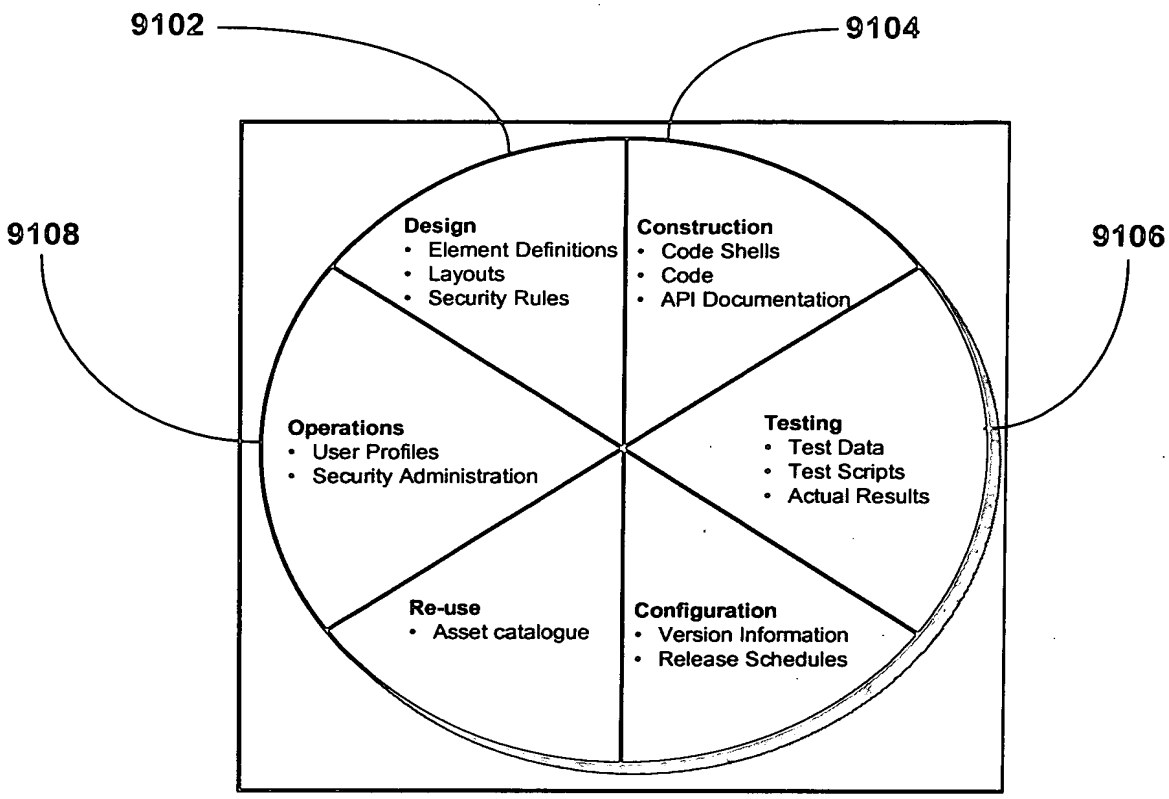

9102
9104
9108
9106
Design
• Element Definitions
• Layouts
• Security Rules
Construction
• Code Shells
• Code
• API Documentation
Operations
• User Profiles
• Security Administration
Testing
• Test Data
• Test Scripts
• Actual Results
Re-use
• Asset catalogue
Configuration
• Version Information
• Release Schedules

Figure 91

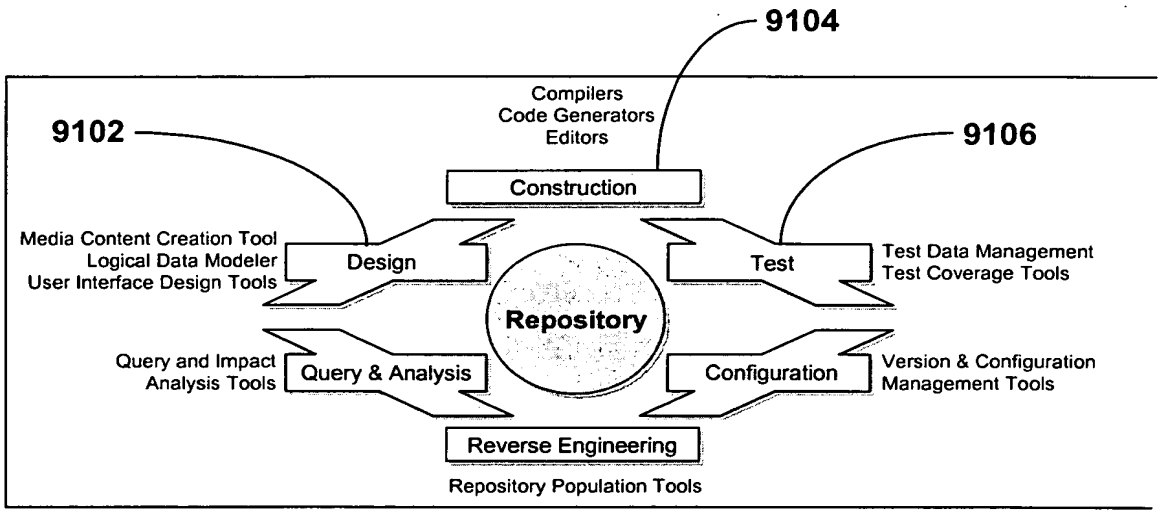

9104
Compilers
Code Generators
Editors
9102
9106
Construction
Media Content Creation Tool
Logical Data Modeler
User Interface Design Tools
Design
Test
Test Data Management
Test Coverage Tools
Repository
Query and Impact
Analysis Tools
Query & Analysis
Configuration
Version & Configuration
Management Tools
Reverse Engineering
Repository Population Tools

Figure 92

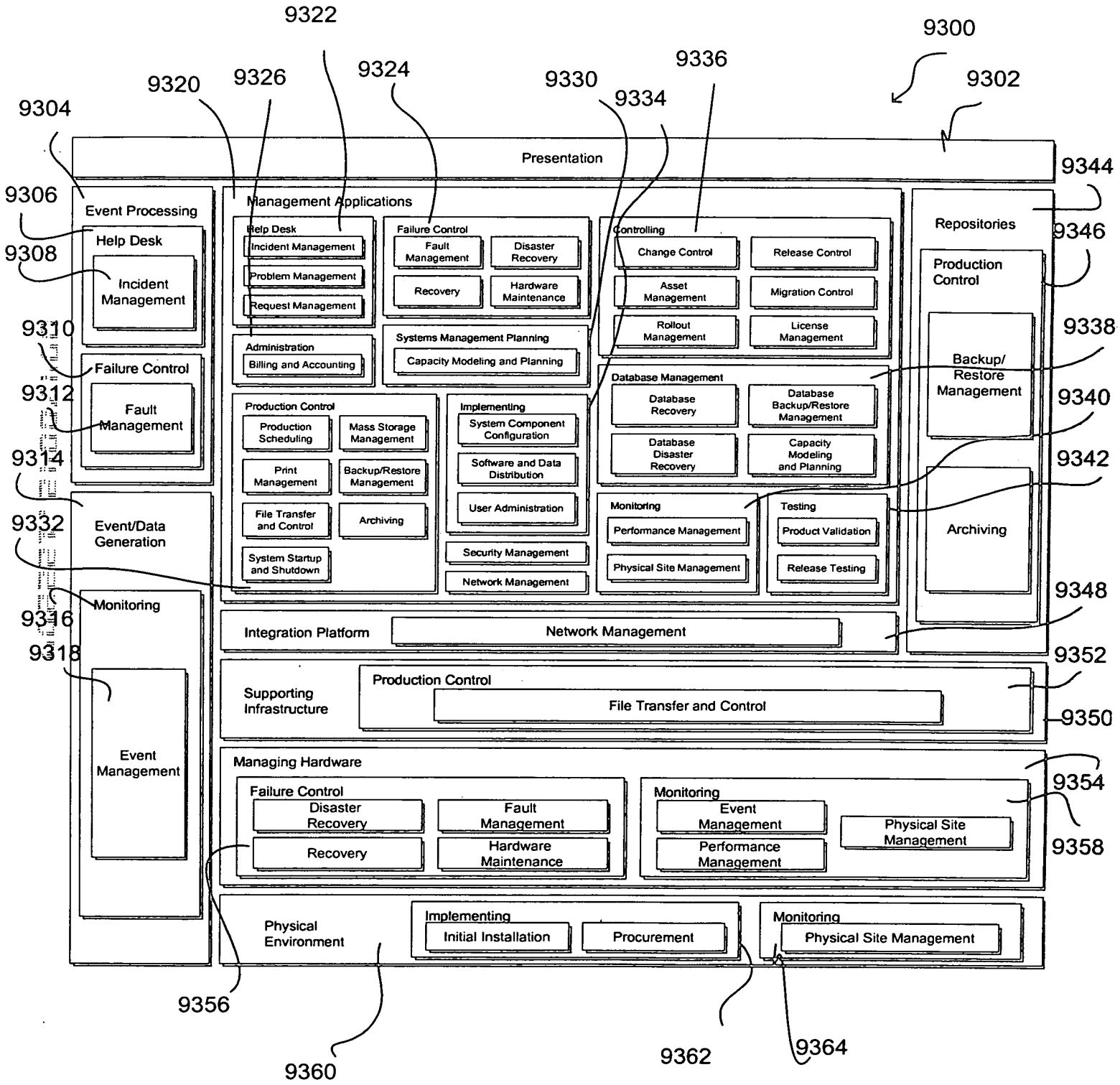

9322
9300
9320
9326
9324
9330
9336
9302
9304
9334
Presentation
9344
9306
Event Processing
Management Applications
Repositories
Help Desk
9346
9308
Incident Management
Help Desk
Incident Management
Problem Management
Request Management
Failure Control
Fault Management
Disaster Recovery
Recovery
Hardware Maintenance
Controlling
Change Control
Release Control
Asset Management
Migration Control
Rollout Management
License Management
Production Control
9310
9338
Failure Control
Fault Management
Administration
Billing and Accounting
Systems Management Planning
Capacity Modeling and Planning
Backup/ Restore Management
9312
9340
Database Management
Database Recovery
Database Backup/Restore Management
Database Disaster Recovery
Capacity Modeling and Planning
Production Control
Production Scheduling
Mass Storage Management
Print Management
Backup/Restore Management
File Transfer and Control
Archiving
System Startup and Shutdown
Implementing
System Component Configuration
Software and Data Distribution
User Administration
Security Management
Network Management
9314
9342
Monitoring
Performance Management
Physical Site Management
Testing
Product Validation
Release Testing
Archiving
9332
Event/Data Generation
9348
Monitoring
9316
Integration Platform
Network Management
9318
9352
Supporting Infrastructure
Production Control
File Transfer and Control
9350
Event Management
Managing Hardware
9354
Failure Control
Disaster Recovery
Fault Management
Recovery
Hardware Maintenance
Monitoring
Event Management
Performance Management
Physical Site Management
9358
Physical Environment
Implementing
Initial Installation
Procurement
Monitoring
Physical Site Management
9356
9360
9362
9364

Figure 93

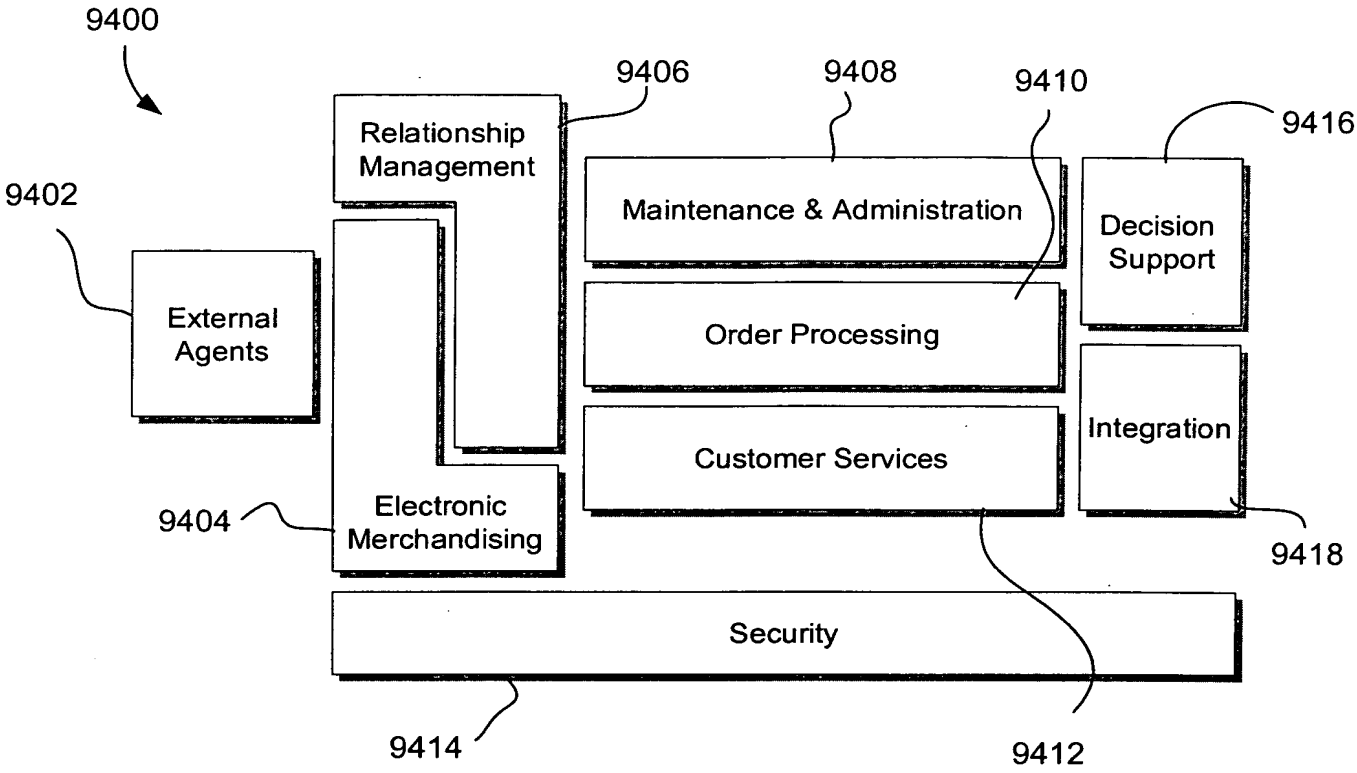


Figure 94

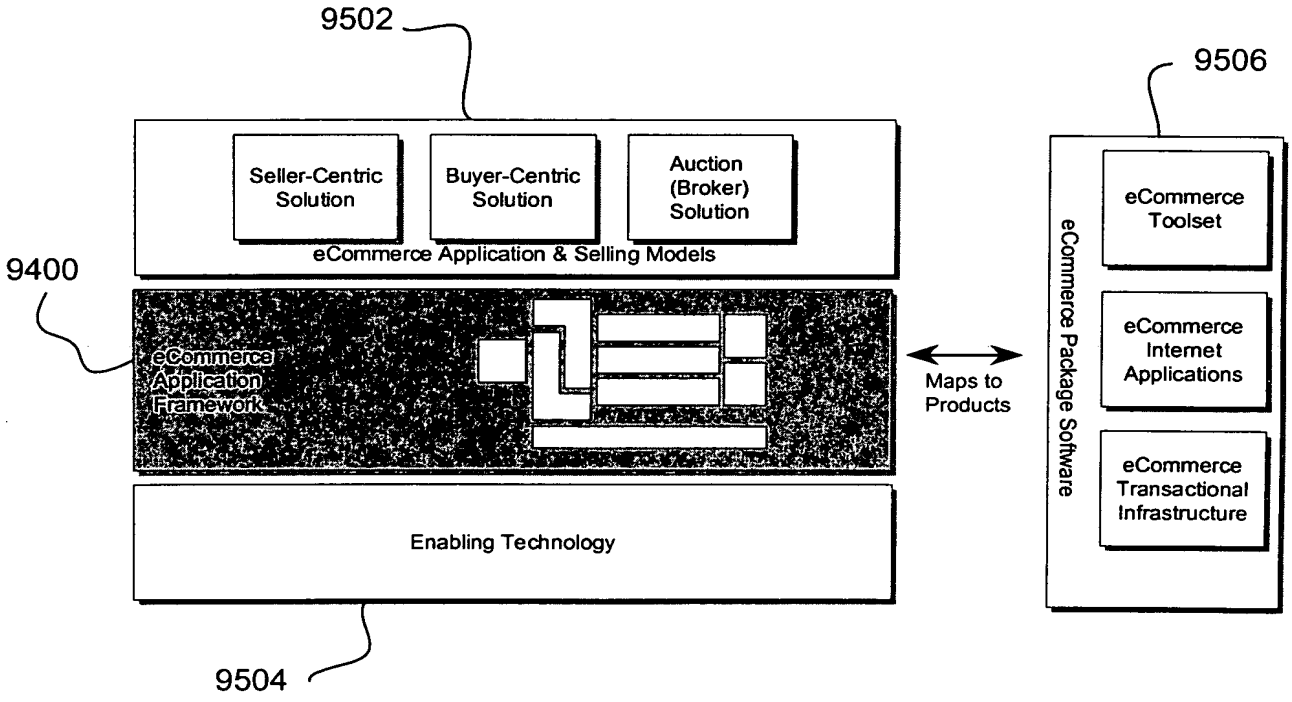


Figure 95

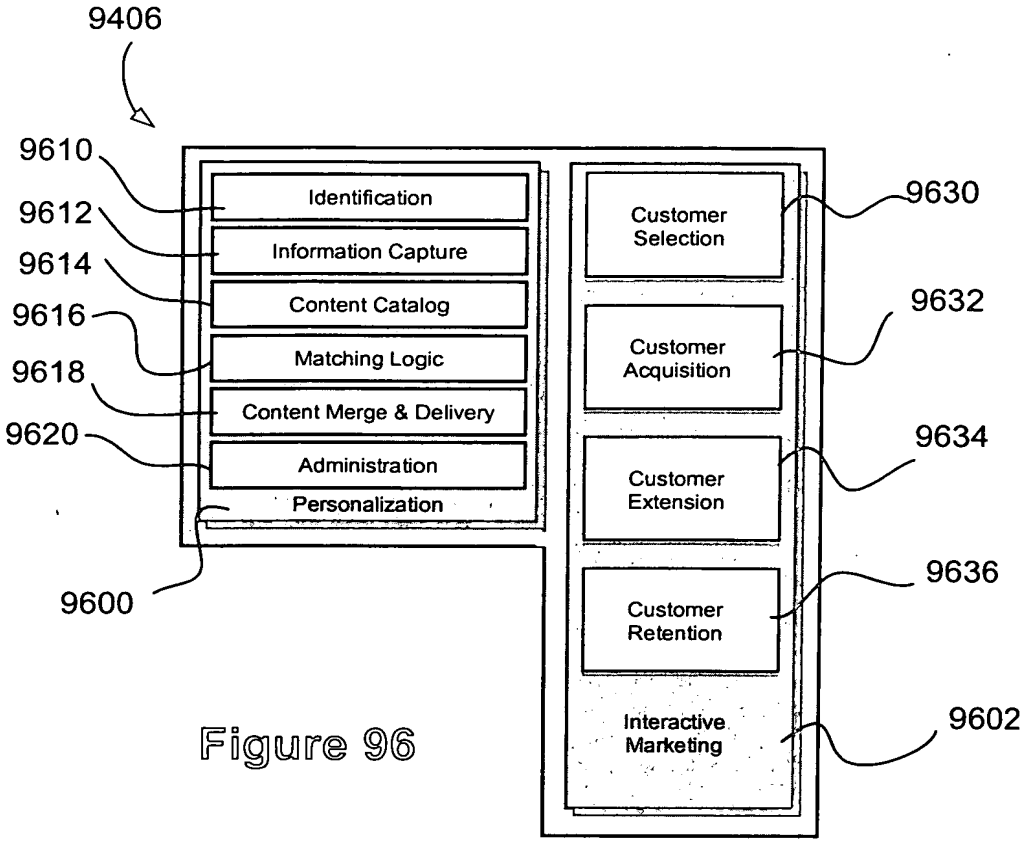


Figure 96

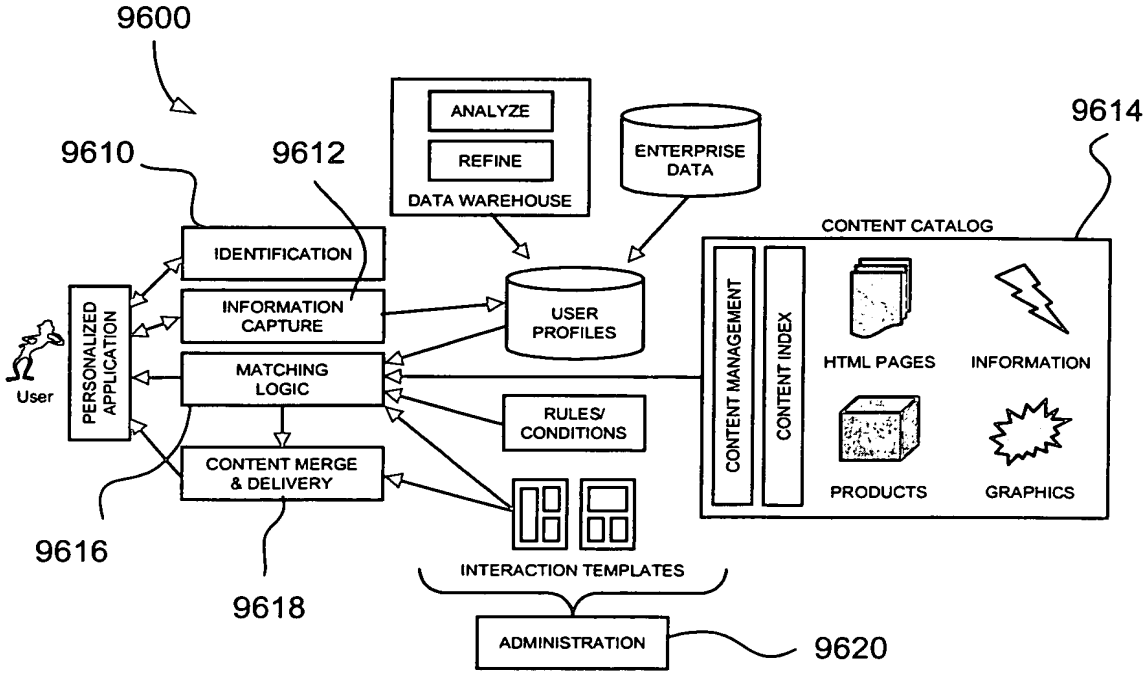


Figure 97

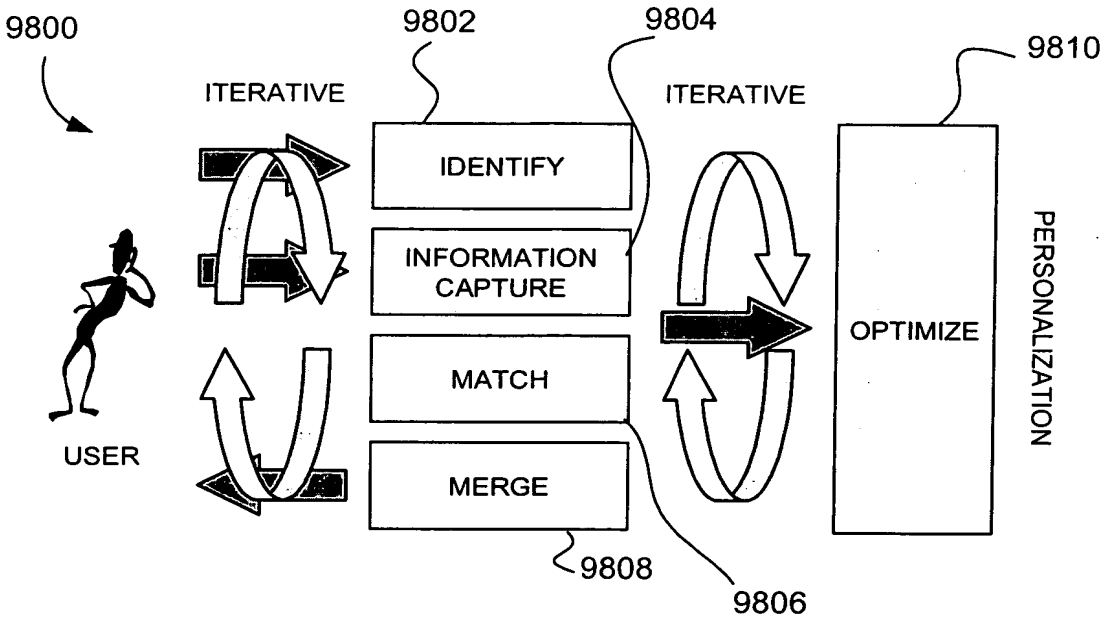


Figure 98

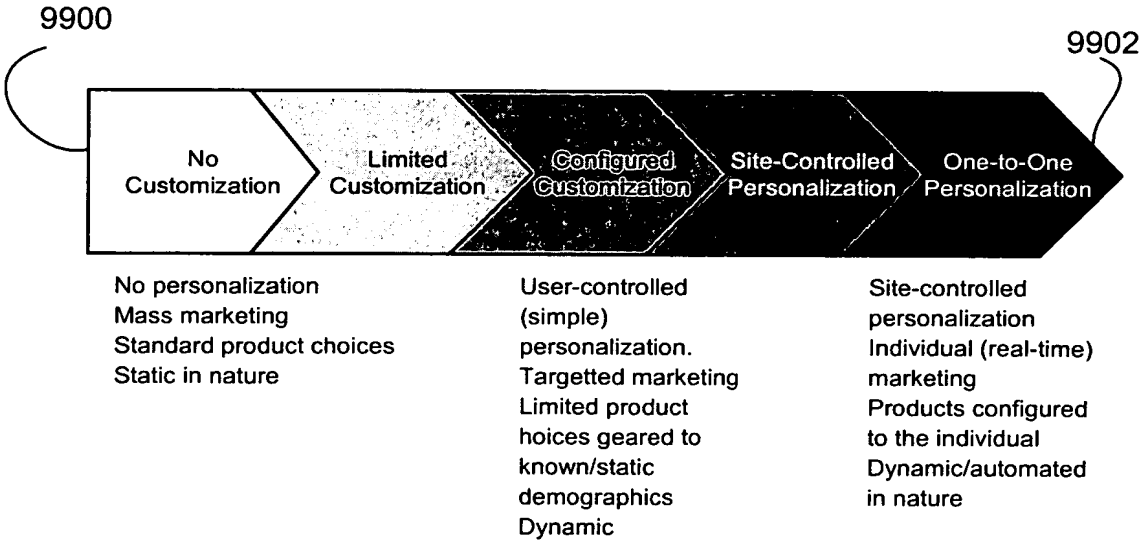


Figure 99

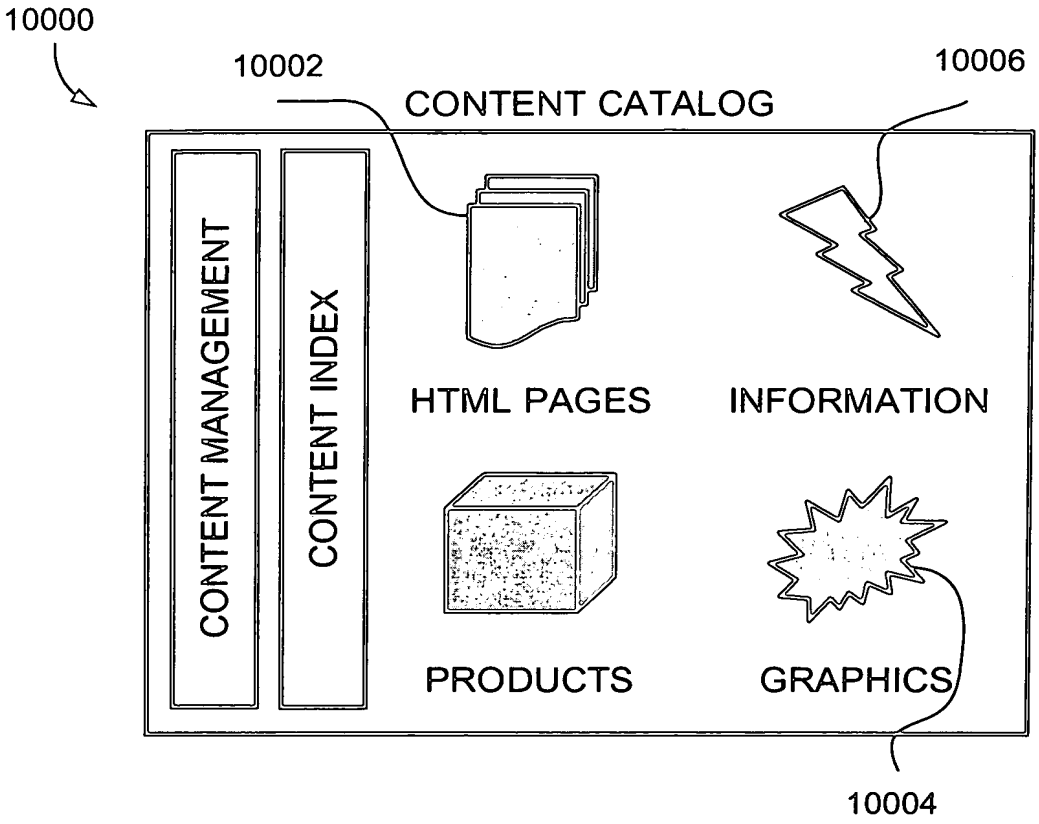


Figure 100

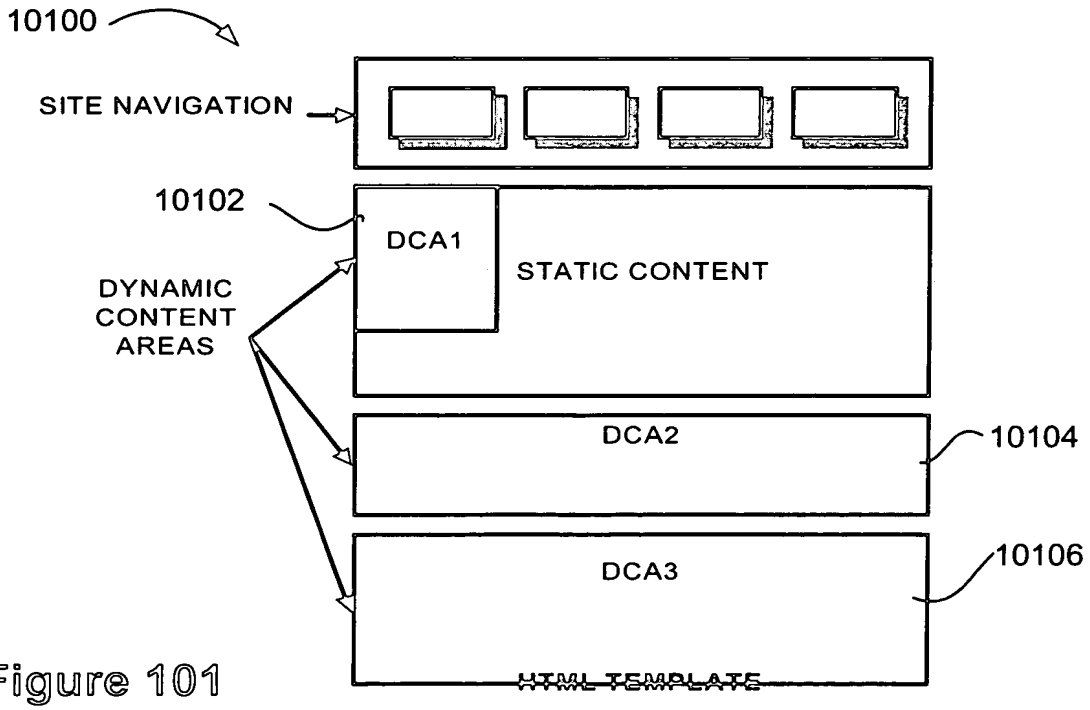


Figure 101

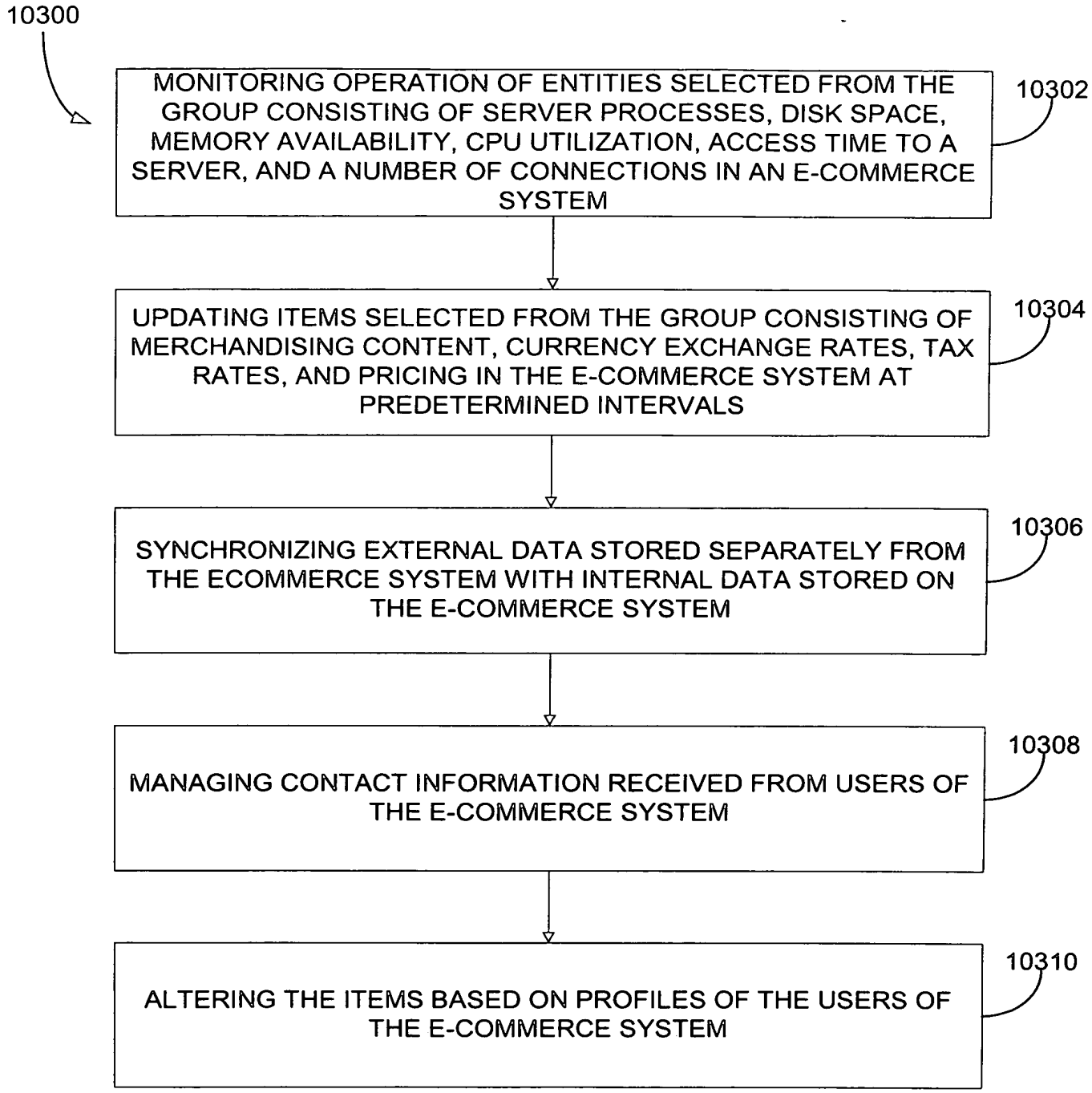

10300
MONITORING OPERATION OF ENTITIES SELECTED FROM THE GROUP CONSISTING OF SERVER PROCESSES, DISK SPACE, MEMORY AVAILABILITY, CPU UTILIZATION, ACCESS TIME TO A SERVER, AND A NUMBER OF CONNECTIONS IN AN E-COMMERCE SYSTEM
10302
UPDATING ITEMS SELECTED FROM THE GROUP CONSISTING OF MERCHANDISING CONTENT, CURRENCY EXCHANGE RATES, TAX RATES, AND PRICING IN THE E-COMMERCE SYSTEM AT PREDETERMINED INTERVALS
10304
SYNCHRONIZING EXTERNAL DATA STORED SEPARATELY FROM THE ECOMMERCE SYSTEM WITH INTERNAL DATA STORED ON THE E-COMMERCE SYSTEM
10306
MANAGING CONTACT INFORMATION RECEIVED FROM USERS OF THE E-COMMERCE SYSTEM
10308
ALTERING THE ITEMS BASED ON PROFILES OF THE USERS OF THE E-COMMERCE SYSTEM
10310

Figure 103

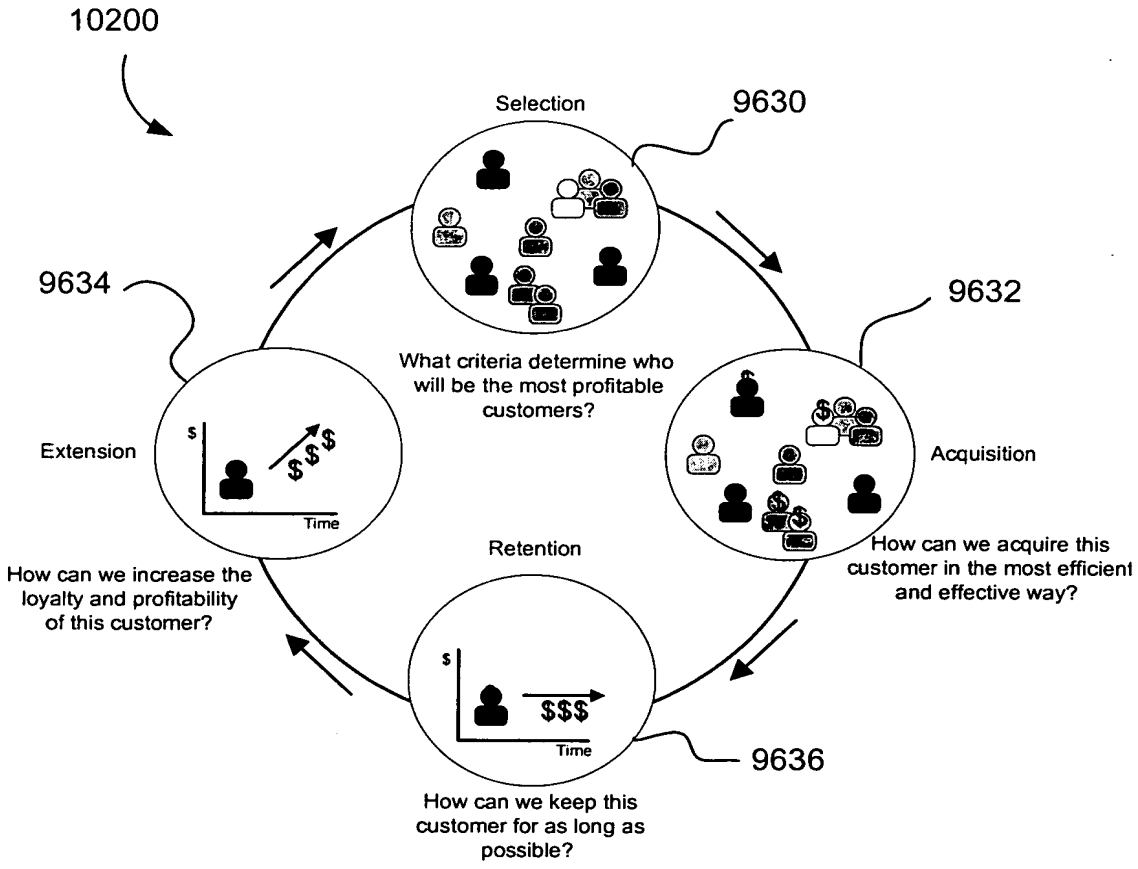


Figure 102

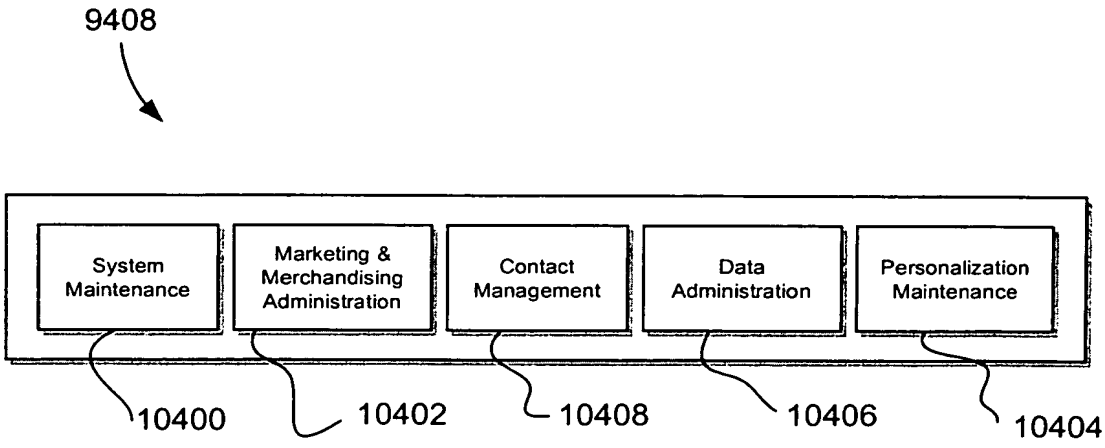


Figure 104

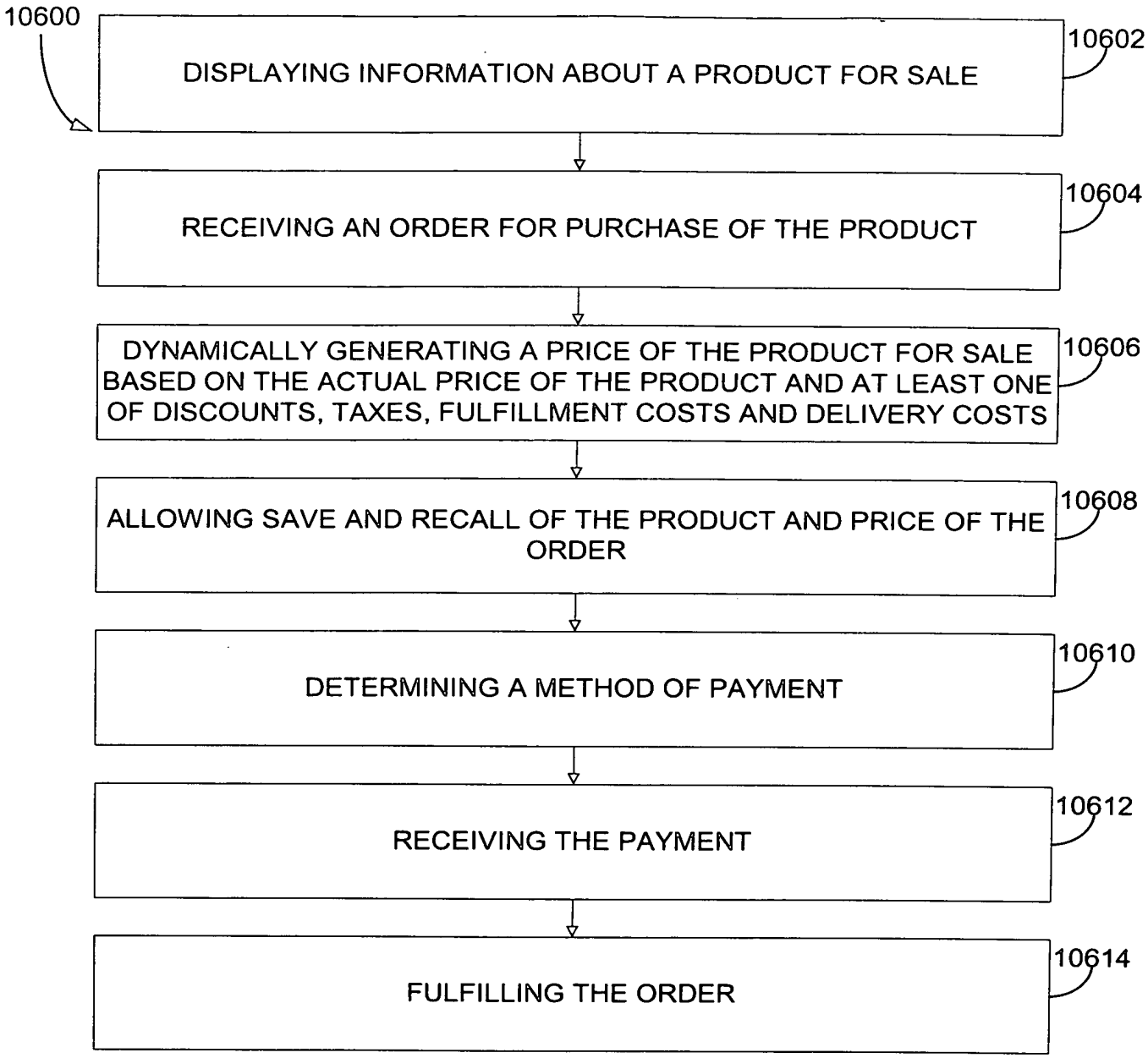

10600
DISPLAYING INFORMATION ABOUT A PRODUCT FOR SALE
10602
RECEIVING AN ORDER FOR PURCHASE OF THE PRODUCT
10604
DYNAMICALLY GENERATING A PRICE OF THE PRODUCT FOR SALE BASED ON THE ACTUAL PRICE OF THE PRODUCT AND AT LEAST ONE OF DISCOUNTS, TAXES, FULFILLMENT COSTS AND DELIVERY COSTS
10606
ALLOWING SAVE AND RECALL OF THE PRODUCT AND PRICE OF THE ORDER
10608
DETERMINING A METHOD OF PAYMENT
10610
RECEIVING THE PAYMENT
10612
FULFILLING THE ORDER
10614

Figure 106

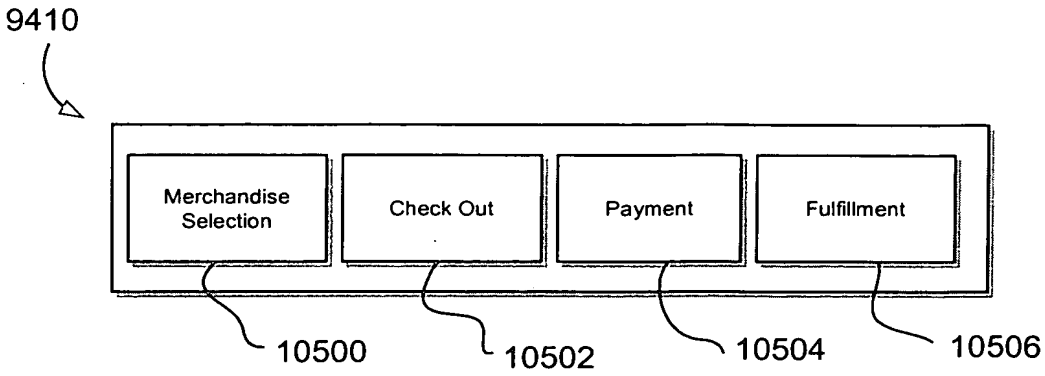


Figure 105

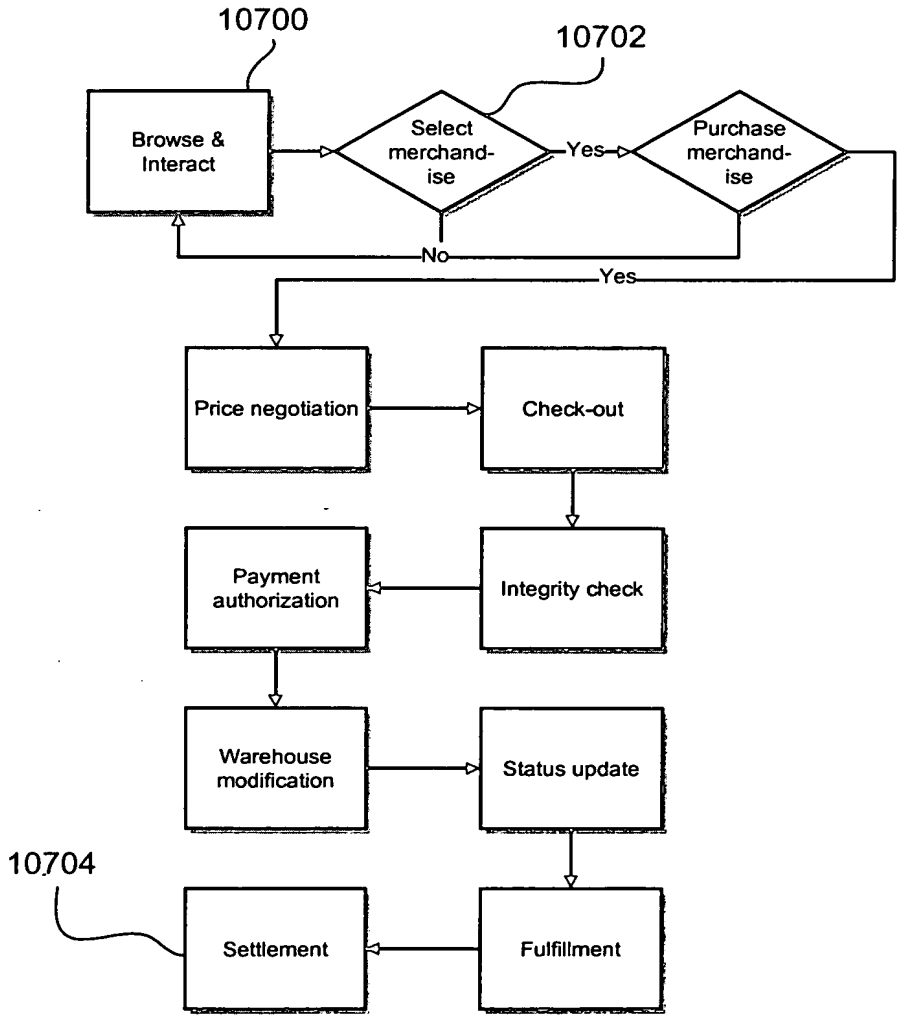


Figure 107

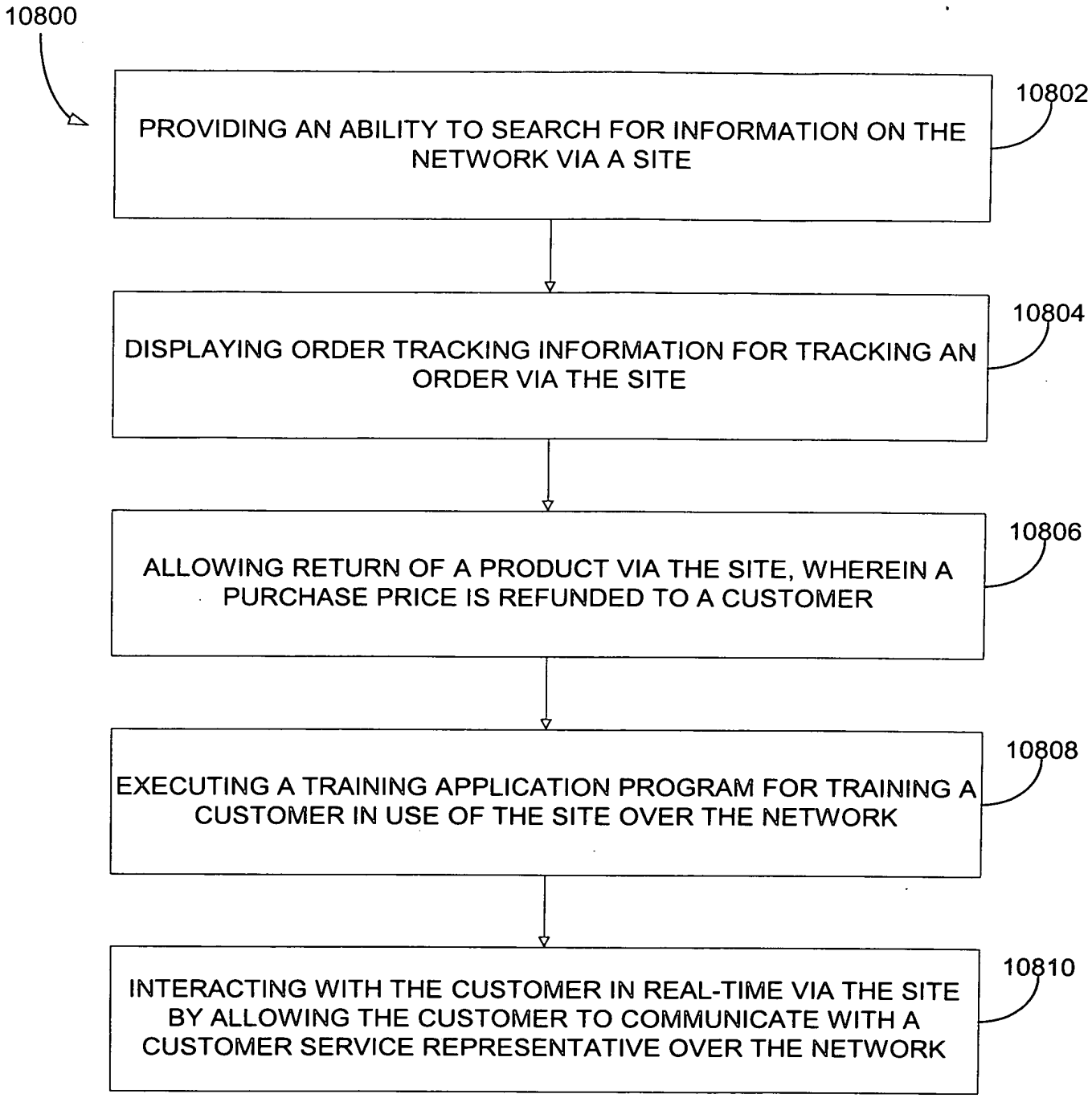

10800
PROVIDING AN ABILITY TO SEARCH FOR INFORMATION ON THE NETWORK VIA A SITE
10802
DISPLAYING ORDER TRACKING INFORMATION FOR TRACKING AN ORDER VIA THE SITE
10804
ALLOWING RETURN OF A PRODUCT VIA THE SITE, WHEREIN A PURCHASE PRICE IS REFUNDED TO A CUSTOMER
10806
EXECUTING A TRAINING APPLICATION PROGRAM FOR TRAINING A CUSTOMER IN USE OF THE SITE OVER THE NETWORK
10808
INTERACTING WITH THE CUSTOMER IN REAL-TIME VIA THE SITE BY ALLOWING THE CUSTOMER TO COMMUNICATE WITH A CUSTOMER SERVICE REPRESENTATIVE OVER THE NETWORK
10810

Figure 108

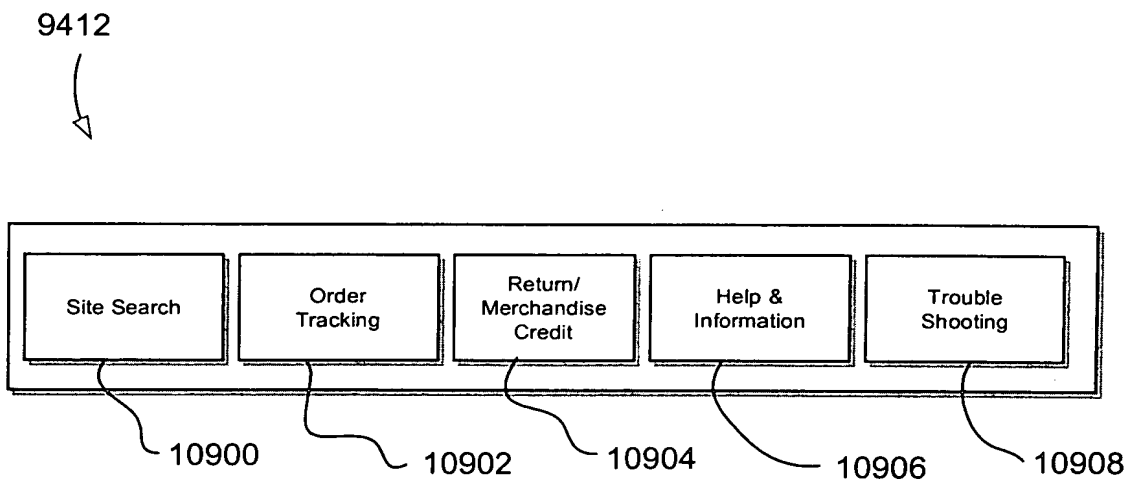


Figure 109

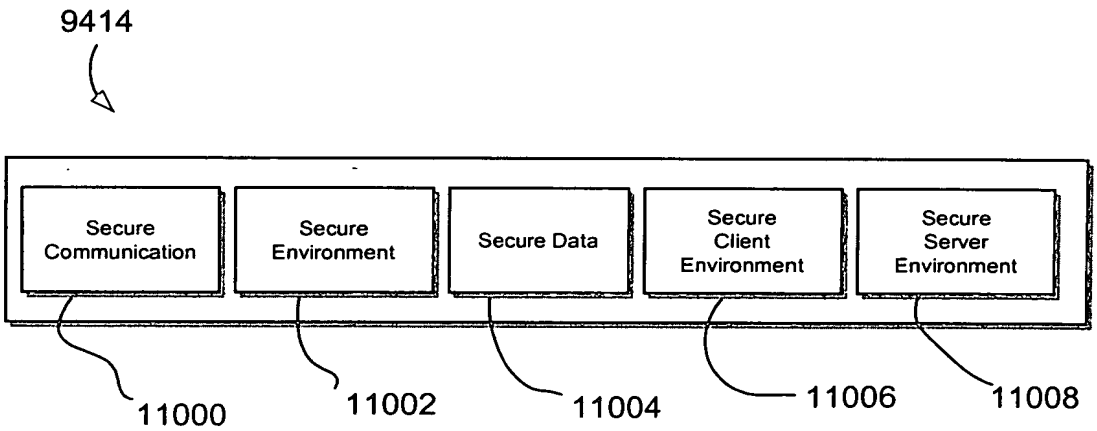


Figure 110

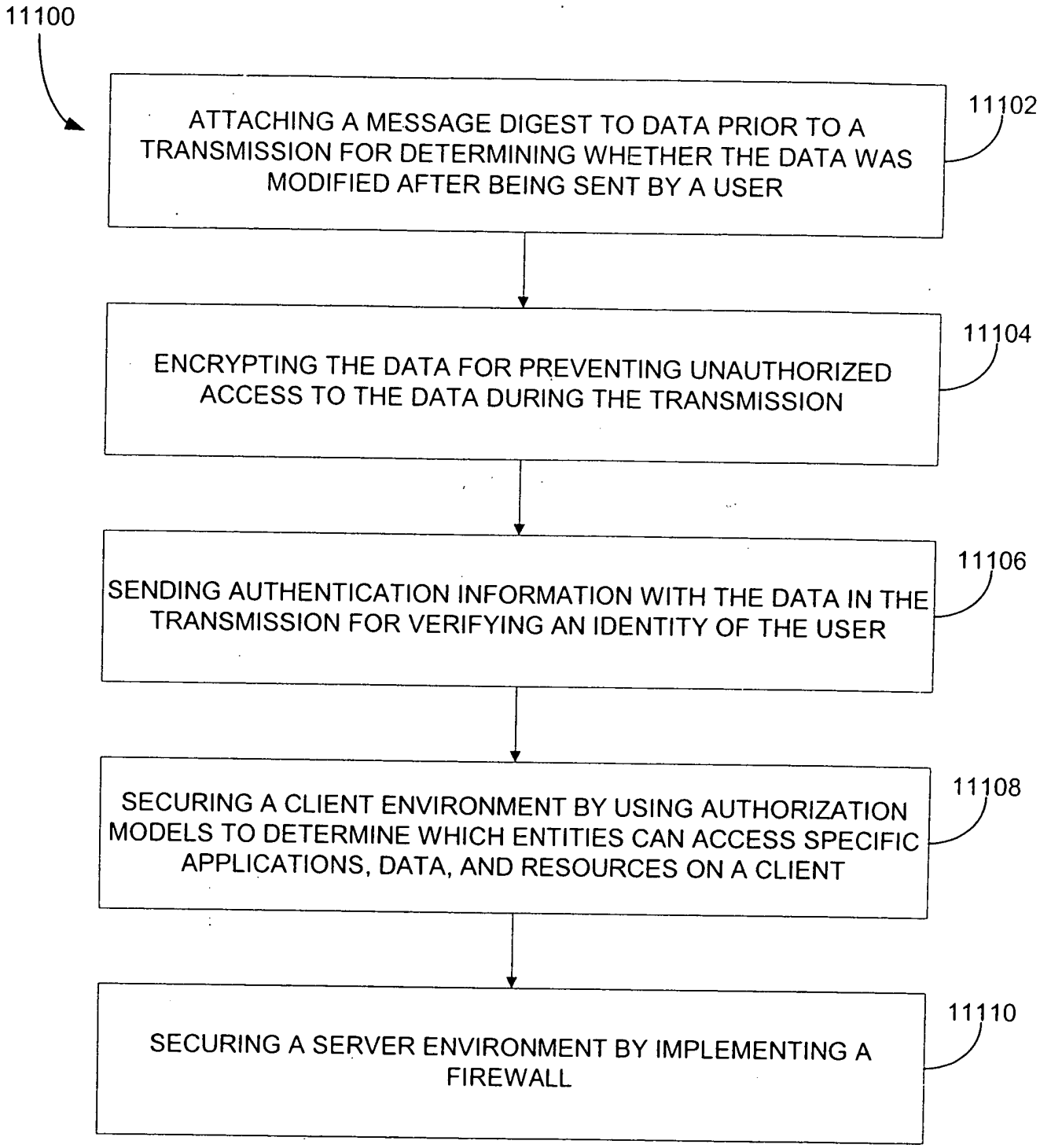

11100
ATTACHING A MESSAGE DIGEST TO DATA PRIOR TO A TRANSMISSION FOR DETERMINING WHETHER THE DATA WAS MODIFIED AFTER BEING SENT BY A USER
11102
ENCRYPTING THE DATA FOR PREVENTING UNAUTHORIZED ACCESS TO THE DATA DURING THE TRANSMISSION
11104
SENDING AUTHENTICATION INFORMATION WITH THE DATA IN THE TRANSMISSION FOR VERIFYING AN IDENTITY OF THE USER
11106
SECURING A CLIENT ENVIRONMENT BY USING AUTHORIZATION MODELS TO DETERMINE WHICH ENTITIES CAN ACCESS SPECIFIC APPLICATIONS, DATA, AND RESOURCES ON A CLIENT
11108
SECURING A SERVER ENVIRONMENT BY IMPLEMENTING A FIREWALL
11110

Figure 111